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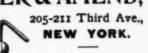
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The business department of THE JOURNAL is on another page.

All letters relating to contributions should be addressed plainly "Editors of School Journal." All letters about subscriptions should be addressed to E. L. Kellogg & Co. Do not put editorial and business items on the same sheet.

Psychology of the Child.*

By Dr. W. Preyer, Wiesbaden, Germany, formerly Professor of Physiology at Jena.

(Concluded.)

The psychology of young children gives promise of much light upon disputed tenets in theory of knowledge. It alone, e. g., presents the completely valid proof for the independence of the development of the understanding from the acquisition of an articulate language, upon which I believe I have sufficiently expressed myself in the last edition of my book, "The Mind of the Child," to forever set aside such false teaching as found in the phrase, "without language no understanding." The way in which the children of all peoples learn to speak, and the condition of the uninstructed deaf from birth, present most convincing proofs for the presence of clear ideas, particular, as well as general, long before the first verbal designation of them

But this kind of ideas is not numerous, and all others, even the later concepts of a higher order, in intensity far surpassing ideas of nourishment, or food and drink, in short, the ideas of that which in the child's intuition satisfies hunger and thirst, and also removes pain, are always the clearest. Without going into the clearingup process of the child's concepts before the acquisition of a verbal language, which would lead us too far, I may emphasize this, that nothing, respecting the presence of innate ideas, can be deduced from the complete agreen ent of earlier, insignificant, and strictly limited ideas of children among all peoples, since all infants are found, not only before, but also after birth, under very similar external conditions, as, e. g., being close to the soft, warm, maternal breast, and in the early days all sleep more than they are awake. As the external conditions become changed with increasing agewhich may be daily enumerated—and the quantity of sleep diminishes, then various psychical conditions arise, and the child's individuality gradually forms itself. The powerful influence of this individual, functional adjustment is most distinctly recognized after the child begins to understand a few words, and has taken posression of himself from his kinsmen, through imitation. Nor is it first capable of completely clear-

ing up and finally concentrating the earlier mingled and too comprehensive concepts.

In this regard the concept of the ego is, perhaps, the most difficult of all to investigate psycho-Its genesis occurs in that child does not distinguish the own body and its parts, so far as they can be seen and touched without a mirror, from other objects. He has not yet recognized the mutuality of its bodily parts, and, consequently, the exclusion of his own personality, that is the ego, from the remaining world, when he gives his cake to his own feet, or looks at its arm a long time, and then bites it hard, or attempts to tear a finger off of its own hand. It makes no difference whether one holds fast to the old view of the permanence of a personal and unitary ego, enduring throughout the entire life, or disputes the unitary nature of the ego in developed mental life; in the earliest years, the child has, under no circumstances, a clear idea of that which is called perception of self, self-feeling, and self-consciousness. These are concepts whose formation demands much experience; especially the suffering of pain, and a far-reaching abstraction on the basis of the very slowly acquired notion of time, the concept of the past, besides a comparison of activity, and passivity of many men with one another, and of the child's own self, and also memory.

Nothing is proved by calling small children egotistic or selfish when they act as though they would have all possible food and sorts of toys for themselves, taking them away from others. This is done by greediness, an animal desire, which also manifests itself in puppies. It is too often forgotten in judging the behavior of uncultivated children-and, indeed, all children, i. e., all human beings in the first few years of life, are uncultivated-that they stand much nearer animals than cultured man. The healthy chick, just out of its shell, which stubbornly attempts to tear off its own claws, as well as those of other chicks, with its beak, has the advantage over the child, in that it gives up much earlier such useless attempts. The sucking of its fingers, for which the child has great preference, not to say passion, and which is absolutely harmful, since it is accompanied with the danger of infection, presents a good example of the persistence of an injurious habit, which no animal exhibits in such a distinct manner. The young of anthropoid apes, although they have not been sufficiently investigated on this and other points, cannot retain even as long as those of man, that kind of perversities injurious to both hands and arms, on account of the independence beginning earlier in climbers.

Further consideration, collection and investigation of perverse, futile, illogical, and purposeless movements of young children, has a very high psychological inter-

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^{*}An address before the General Session of the Third International Congress of Psychology, Munich, August 5th, 1896. Translated for The School Journal, by Edward Franklin Buchner.

est, because from these result, with a probability almost amounting to certainty, the so-called apriori properties of the human mind, including the various forms of judgment. Among all the possible kinds of psychical adaptation to the objectively given world, only those, finally, can remain in unavoidable strife with the existence of the child, which are compatible with its abiding in the world. Injurious habits, permanent unlogical considerations, combinations of ideas standing in opposition to experience, must, on the contrary, be neglected, just as, e. g., the double images arising in binocular vision, or the gaps produced by the blind spot in each retina come to be neglected by every person. Each child presents a proof that a great deal must be forgotten during the development of the mind, since otherwise rational control of conduct would be impossible in later life. That which the psychology of the child has brought to light in indisputable facts-and it already amounts to something-is in complete agreement, in this regard, with the view that the formation of all fundamental psychical functions takes place through competition, adaptation, and heredity.

If the total organism has gradually developed itself, either with the aid of selection, as in Darwin's view, or in any other manner, then also must the totality of the minds united with the organism, souls, instincts; in short, everything psychical, have developed at the same time. So much is certain. But, in the concept of development there always lie the general and the individual. That the latter is a shortened repetition, often essentially modified through adaptation, of the general development, is no longer doubted as regards the form of the organism. This is no less true of the soul, according to my observations, on children and young animals. Child and comparative psychology, therefore, will be and remain of the greatest importance for a knowledge of the entire psychical organization of man. The whole spiritual development of the human race is reproduced, though shortened, in the child.

I close with the hope that my efforts will result in inciting in Germany, fundamental, scientific, i. e., physiological-psychological investigation on the small child. A multitude of new facts are yet to be discovered, which may reach very far, theoretically, and practically will place in prospect new means for promoting the child's development into humanity.

Relation of Manual Occupations to Other Studies.

By T. G. Rooper.

There is very prevalent, at the present time, a popular demand for an improved course of studies in elementary schools, which may easily end in the domination of a popular fallacy. I refer to the demand that education should be less bookish, and more practical. I imagine, however, that among things undeniably practical few are more so than the use of the right book at the right time. On the other hand, what can be more unpractical than false or antiquated practice, whether on farms, or in workshops, or in manufactories? If the popular demand for improved education takes shape in the cry, "More hand work, and less brain work," then there is a fallacy concealed in the

popular understanding, and there is no kind of fallacy which is more difficult to deal with than one which underlies an opinion that is both obvious and wrong, My object in this paper is to disabuse the minds of those who regard hand work as the antithesis of brainwork in education.

Few deny that children are sent to school to prepare for life, and not to learn a particular way of earning a livelihood. Yet many do not see any inconsistency when they admit this as a truth, and at the same time maintain that education, to be useful, should enable a school child to learn something at school which he can continue as a trade or profession on leaving. For them, learning means earning. Learning, they think, which does not end in "addling brass is merely addling brains." The primary school is, at any rate, a preparation for life, so that all that is taught there should have a general bearing. As soon as a subject is taught at any school, if that subject has an almost exclusive bearing on the child's money-earning power, and is not of general application, the school becomes a technical school.

The difference between a school and a technical school is this: The aim of a school which is not a technical school is, that the scholar may learn how to acquire knowledge; in a technical school he learns how to put knowledge to use. In giving a classical training, if the masters were to teach Latin and Greek in such a way that every scholar would be fitted on leaving their school to become a schoolmaster, and nothing else, the education would be a technical education. The difference between technical instruction and general instruction lies not in the subject, but in the method and purpose of the course of study. French, for instance, is a subject of technical instruction, when the aim of the learner is to buy and sell in the French market, or conduct French commercial correspondence. French forms a part of general education when the aim of the learner is to be able to read and appreciate French literature. Arithmetic, if taught as a set of rules or operations for buying, selling, measuring, and banking, is technical instruction. If it is taught as an introduction to the properties of number, and the processes of reasoning, which depend upon them, it is a part of general education.

I insist upon this distinction between technical and general instruction, because, although it may appear to be sufficiently obvious, much confusion still prevails in the mind of the public, because it is not clearly grasped.

What is technical instruction? asks the newly-elected county councillor. He looks down the South Kensington list of subjects, recognized as constituting such instruction, and concludes, from the titles and names which he finds therein, that there is virtually no difference between technical and general education, because the subjects are the same. Yet, the difference between the two kinds of education is wide, and should grow even wider. There is a danger that practical men may take up more and more of the school life of the child with strictly technical training, and diminish the priceless hours which are available for general training. In the eyes of the practical man technical training assumes an exaggerated importance, because there "seems to be money in it." We shall, with difficulty, persuade practical sense that the commonwealth comes before the workshop, and that we must train the man before the workman. The first aim of general education is the good of the nation, by the elevation of the social condition of the people, while the first aim of technical education is to improve workmanship.

If it is easy to confuse technical and general training when speaking of a study like French, how much easier is it to make the same confusion when manual training is under consideration? Some of the most sensible and practical men pertinently ask, "How is it possible to train the hand generally?" It is not impossible, they allow, to train the hand of the lacemaker, or of the machinist, for their respective crafts; but what sort of hand-training, they ask, which is helpful to a lacemaker, can also be of service to an engineer, or, rather, "a fitter" in the engineering business? Manual training, they argue, as a branch of technical instruction, is an impossibility in schools which are not tech-

I have no answer to make to this argument, but I contend, and will do my best to prove to you, that manual training is not a mere training of the hand for industry, but a training of the mind through the hand, and that just as children learn much through the eye, and incidentally train the eye in using it, so they can learn through the hand, and incidentally train the hand through its use. What children learn through the eye may improve the power of vision, and, under hygienic conditions (which are, however, too often neglected), not unfrequently does so, but the improvement of the eye as an instrument of observation is not the primary object, say of a lesson in handwriting. Similarly, manual occupations are not to be introduced into the school routine for the immediate or exclusive purpose of training the hand or cultivating technical knack. They are, on the contrary, intended to serve the same purpose as science or literature serves. They are a necessary part of a complete intellectual and moral training. No subject deserves to form a part of general training unless it can be shown to have the power of strengthening the understanding and the will. If manual training is viewed only in the light of its bearing on industrial life, it will be very difficult to prove that there is any place for it at all in a well-considered school routine. But the subject must be studied in the light of our educational experience as a whole, and we must avoid narrowing our views to that aspect which presents itself to the partial and limited range of an artisan, or an engineer, or even a specialist, in any of the arts or crafts.

It is very important that we should not delude ourselves into believing that the object of manual training is simpler than it is. It is plausible and attractive to have a plain and simple story to tell. But if simplicity is won by the omission of all that is not easy to grasp, the value of the plain statement is very slight, in spite of its being intelligible. Do not let us fancy that we have expressed the last word on manual training when we say, "Teach the use of a few ordinary English joiners' tools, especially plane, saw, and chisel, in making a few common joints from working drawings." So long as the "New Code" whittled down the education given in elementary schools to reading, writing, and arithmetic, this simple course of study not only

produced very imperfect power of reading, writing, and reckoning, but completely failed to stimulate the scholars to enlarge their minds by spontaneous efforts.

I need scarcely say that I look upon manual training as of far greater value than if it merely produced a "handy man," such as your gardener, for instance, who can grow you a cabbage, and also make you a rabbit-hutch or a summer-house; but, even if I confined my conception of the value of manual training to this limited result, I should, as a man of practical knowledge, desire something more than practice in the use of plane, saw, and chisel. The other day I was witnessing a demonstration given by a demonstrator in horticulture. He showed some boys how to make two different kinds of grafts. The only instrument which he used was a pruning knife. It occurred to me as I watched the demonstration that the use of the kinfe required some address, and that boys might have made a good deal of progress in the use of plane, chisel, and saw, without being very "handy" in making a graft or bedding a rose. Perhaps, however, so long as agriculture of the progress of the ture and horticulture were examined by means of papers written in the country, and revised in London, the absence or presence of handiness was not very likely to be discovered by the examiners. The trainers of the modern system of instruction, by excessive use of written examinations, have discovered a powerful sterilizer of the growth of observation and reasoning.

No living student of language or science has reached middle age without becoming aware that many of the conclusions which he was taught to accept as correct and sound in his youth, he has had, in the light of maturer knowledge, to abandon. Now the collation of facts and methods of study upon which those erroneous or incomplete conclusions were based, has been of enduring value, in spite of the mistaken inferences. The important part of the study was the process of acquisition. The thing acquired, a false conclusion, was of evanescent value. Yet the written examinations which middle-aged men passed in their youth tested mainly the knowledge of conclusions, while the processes by which those conclusions were reached remained almost untested by the examiner. It is a valuable feature in manual occupation that it fixes attention upon the need of process, growth, and time in education, and that while written examinations may serve to conceal imperfect knowledge by a clever conjuring with words and phrases, in manual work the real net result of the sum of the exercise of the senses and the intellect upon certain objects and branches of knowledge can

be effectively tested.

I do not, for a moment, wish to depreciate abstract studies in comparison with so-called concrete ones, but I do think it is a remarkable fact that some of those heroes of science who have met with the highest success in abstruse and philosophical discoveries have been remarkable for their manual exercises in early life. Thus, of Galileo we read: "Galileo, from his earliest childhood, was remarkable for intellectual aptitude, as well as for mechanical invention. His favorite pastime was the construction of toy machines, not the less original and ingenious that their successful working was usually much hindered by the scarcity of suitable mater-Newton, again, displayed very early a taste and aptitude for mechanical contrivances. He made windmills, water-clocks, kites, and dials, and he is said to have invented a four-wheeled carriage, which was to be moved by the rider. I like to think of Newton riding on a cycle of his own invention. Spinoza, like Galileo, ground lenses, and Descartes did the same, combining with this craft that of gardening. I believe that there is a very close connection between the intelligent use of the hand in youth and the solid output of the reasoning powers in maturity.

(To be continued.)

Grammar Suggestions.

EIGHTH YEAR.

1. The pupil will have had language training and thus practically know how to construct propositions. He is now to learn something of the science of propositions. This should be learned not from definitions committed to memory out of the books but not from definitions committed to memory out of the books but by studying the language itself. A sentence will be written, as, *The leaf is green*. Here are three things, (1) the subject, (2) attribute, (3) copula; an expression made of these things when the elements are in their right forms and are rightly arranged, is a proposition. Grammar is a knowledge of the right construction of propositions. proposition. G

2. Exhibiting several, it will be shown that a proposition is a right arrangement of subject, attribute, and copula each in its right

form.

3. Exhibiting several it will be shown that there are three kinds of propositions according to general structure; the simple has but one subject, attribute, and copula, as, The boy has gone.

4. Placing several on the board it will be shown that the compound has two or more subjects, two or more attributes, as, John comes and James goes. John and James have gone, etc.

5. Placing several the complex will be shown as one in which one proposition defines or limits another as. The boy who tald me.

one proposition defines or limits another, as, The boy who told me

6. The parts of propositions are independent when they can

exist alone, as, Charles came when the bell rang.

They are subordinate if they depend on other propositions to give them meaning, as, Charles came when the bell rang.

They may be co-ordinate, of equal rank, as, John re.ds, James

1. Propositions are, thirdly, classed according to use. The proposition may be used (a) as the subject of a verb, as, How long we shall stay is uncertain; or as an object to the verb, as, I knew he would come, or (b) to describe the subject, as, The book which you have is new, or (c) to describe the predicate, He stood where I could see him. He speaks with a clear voice. In this last case the predicate is described not by a proposition but by a phrase.

8. There are eight classes of words or parts of speech in the proposition:—

a. Nour: as, That man is a sailor.
b. Pronoun: as, The boy studies his book and he learns his

isson.

c. Adjective: as, I have a white rabbit in this box.
d. Verb: as, The boy is young. The boy runs. Participles: s, I saw a boy cutting wood. My watch is gaining.
Infinitives: as, He tried to study. Thinking (to think) is as, I saw a boy cutting wood. My watch is gaining. Infinitives: as, He tried to study. Thinking (to think) is comparing (to compare) ideas. e. Adverb: as, The bird flies swiftly. Mary studies very dili-

gently.

f. Preposition: as, The blackbird is singing on Michigan's shore.

Conjunction: as, They move as sweetly and gaily as ever

before.

h. Interjection: as, O, hail! Oh / I would like to be a king.
The same word may be one part of speech and then another, according to its use. We say, "Truly is an adverb," in this case it is a noun; any word becomes a noun when it is used as a name of itself. We say, The pupil who studies will learn. This is a conjunctive use of who: a word used to connect two clauses has a conjunctive use. We say, Two and two are four because (equivalent to, Two with two are four). John and James will go (equivalent to, John will go and James will go). In the first case, and is a preposition; in the second, a conjunction.

The teacher should require many applications to be made by the class in constructing in sentences the words whose definitions have been taught.

have been taught.

9. I. Grammatical forms of nouns:—

a. Number: Illustration, The star is bright. The stars are bright. Number,—singular, plural.

Show how plurals of nouns are formed. I. Regular plurals.

2. Some exceptions.

b. Gender: Illustration, The Prince has come. has come. Gender,—femin The Princess Gender,-feminine, masculine,

neuter.

Teach that sex is usually shown by different words rather than by different forms of the same word. Example: The boy is going to school. The girl is going to school.

c. Case: Illustration, Morse invented the telegraph; Morse's invention made his name immortal.

Teach case: 1. Simple case. 2. Possessive.

Forms of the possessive case of nouns: 1. Singular. 2. Plural.

Of nouns ending in s.

Forms of the possessive case of nouns: 1. Singular. 2. Plural. Of nouns ending in s.

Have the pupils write many sentences in application of their knowledge of number, gender, and case forms of nouns.

2. Pronouns:—Personal pronouns, first, second, and third: Illustration, I, you, he.

Grammatical forms: Illustration, gender, number, case.

Relative pronouns: Illustration, relative pronouns who, which, what, that, and compounds. Grammatical forms of who. (No relative pronouns have forms except who and its compounds, which have case forms.)

Adjective pronouns: Illustration, adjective pronouns, some, any, all, each, every, few, that, this, one, other. Grammatical forms of this, that; plurals; possessive and plural forms of one and other.

Have exercises in constructing the personal, relative, and adjec-

tive pronouns in sentences.
3. Adjectives: Grammatical forms. Comparison: Illustration,

wise, wiser, wisest.

Degrees of comparison: Illustration, positive, comparative, superlative.

Have exercises in constructing these forms of the adjectives in

Many adjectives, instead of changing their form to express degrees of quality, are limited by the adverbs more and most. Illustrate. Many adjectives cannot be compared on account of their meaning: Examples, perfect, square, this. Some adjectives are irregularly compared: Example, good, better, best. sentences

10. Verbs:—their kinds. Teach kinds of verbs

Teach kinds of verbs according to relation of attribute to the verb: 1. Copulative, He is good. 2. Attributive, He walks. According to use with or without an object: 1. Transitive, Boys love fruit. 2. Intransitive, He sleeps. According to form of past tense: 1. Regular, He laughed outright. 2. Irregular, The horse ran away. Give list of irregular verbs

Have exercises in the use of the above verbs.

Verbs, their grammatical forms:—

a. Voice: Illustrate, active voice, The boy threw the ball; passive voice, The ball was thrown by the boy.

Have exercises in writing verbs in the a tive and the passive voice.

voice.

b. Mode: Illustrate, indicative mode: Illustration, Birds fly; potential mode: Illustration, Birds can fly; subjunctive mode: Illustration, If it rain, we cannot go; imperative mode: Illustration.

Have exercises in the use of two different modes of the verbs.

Tense: Illustrate, present tense: Illustration, I depart; past tense: Illustration, I departed; future tense: Illustration, I shall

Number and person: Illustration, I come, thou comest, he comes.

we come, you come, they come.

Have exercises in the uses of the tenses, numbers, and persons

Forms of participles: Imperfect: Illustration, James is writing a letter; perfect: Illustration, James, having written the letter,

etc.
Teach the use of the participle and how it is limited.
Teach forms of infinitives: Imperfect: Illustration, He promised to give; perfect: Illustration, To have given wisely is a

Sign of the infinitive. Infinitive, how limited. Uses of infinive, as subject, object, adjective, adverb.

Adverbs: Comparison in certain cases, with examples.

Prepositions:—
Use of prepositions. Conjunctions, kinds :-

Conjunctions, kinds:—
a. Subordinate: Illustration, I will go if I can.
b. Co-ordinate: Illustration, Life is short and art is long.
c. Correlatives: Illustration, It will either snow or rain.
Have many exercises in constructing conjunctions in sentences.

Interjections: - Uses and punctuation of O and Oh.

NINTH YEAR.

II. Teach analysis of propositions; illustrate the analysis. STEPS.—a. State the proposition.
b. State the complete subject and the complete predicate.
c. State the grammatical subject and the grammatical predi-

d. State the elements that limit the subject. Analyze each in full by describing the kind of element, the basis and its limita-

State the elements that limit the predicate element, and analyze them in the same way.

12. Teach relations of the noun in the proposition:—

(1) As subject: Illustration, Snow is white. Rule for con-

(1) As subject: Illustration, Snow is white. Rule for construction of subject.
 (2) As attribute: Illustration, Time is money.
 (3) As limiting another noun by naming the possessor: Illustration, This is John's book.
 (4) As limiting another noun for definiteness: Illustration, Solomon, the son of David, was a great king.
 (5) As used independently: Illustration, John, study the lesson.

(6) As the object of the verb: Illustration, I found a knife.
(7) As the object of a preposition: Illustration, I saw him on the kill.

(8) As used absolutely: Illustration, The sun rising, we pursued our journey.
(9) As used adverbially: Illustration, He remained a day.
(11) As the indirect object of the verb: Illustration, I gave the boy a knife. (11) As objective attribute: Illustration, They made the man

president.

In each of the above cases a rule should be derived for the

repared by the pupil illustrating the rule.

Naming a kind of word in the proposition, describing its form and its use and deriving a rule of construction, implies a knowledge of the grammar of the language and is called parsing.

13. Teach relations of the personal pronoun in the proposition

As subject of the proposition: Illustration, I rejoice. As attribute: Illustration, It is he. It is they. As an object: Illustration, I see him now.

As used absolutely: Illustration, He coming, I did not go. In the propositions: It rains. It is dark. It is two o'clock. pleasant to see the sun.

The personal pronoun is used in all the noun relations except

the adverbial.

the adverbial.

14. Teach relations of the relative pronoun in the sentence:—
(1) As having a noun use and a conjunctive use: Illustration, Solomon, who was the son of David, was king.
(2) As possessive: The boy whose book is lost has left school.
(3) As the object of a verb; as the object of a preposition; as

sed independently.

The relative pronoun is used in six of the noun relations.

15. Teach relations of the interrogative pronoun in the propo-

Interrogative pronouns have a noun use and also serve to in-

troduce a question.

(16) Teach relations of the adjective pronoun in the proposi-

tion:—

(1) As a noun: Illustration, That is a book.

(2) As an adjective: Illustration, I bought that book.

Relation of the adjective in the proposition, as limiting the meaning of a noun: Illustration, The wise man forseeth the evil.

17. Teach relations of the verb in the proposition:—

(1) Principal parts of the verb: Illustration, know, present tense; knew, past tense; known, past participle.

(2) Synopsis of the verb: Illustration, with the verb love, in the active and the passive voice.

(3) Teach the auxiliary verbs that are in common use.

(3) Teach the auxiliary verbs that are in common use.

Teach relations of the remaining parts of speech in the proposi-

After the rules of construction in sentences have been derived, have constant practice in applying them.

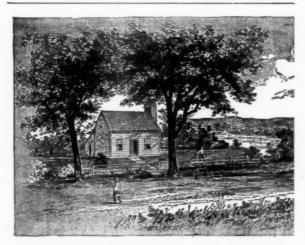
Our Back Door.

Just back of the house, right under a tree, Is a box that is full of silver sand— is sand that was washed by a saltless sea Till it rivals the white of a woman's hand; And out of that box of sand arise Such wonderful sights as never before Were spoken of lip or seen of eyes,
And all within sight of our back door.

There's an old pie tin, with numberless holes,
A shovel, a rake, and an old tin can,
A block of wood, and, oh, dear souls,
In the midst of these is a workingman!
He is busily making pies and cakes,
And digging, and sifting, and playing store,
The which a hole in his stomach makes,
Which he brings to fill at our back door.

And all of the little folk living near Have heard of this wonderful box of sand, So full of treasures their hearts hold dear, And in come trooping the busy band,
Till the sands have forgotten the cruel sea
And the waves that lashed the sounding shore
For the flood of laughter, the bubbling glee,
That ripple and break by our back door.

—" Standard Designer."



Birthplace of General Grant. (See article on page 482.)

nature Study.

Two Common Spring Flowers.

By Frank Owen Payne.

(See large supplementary chart sent out with this number.)

Among our earliest spring flowers are the delicate and dainty There are several of these, but the two most common, anemones. and best beloved, are those figured in the chart. They are enlarged three or four times. For the benefit of teachers who have studied botany it may be well to mention the fact that the various botanies in use in our schools differ in their naming of these

The RUE ANEMONE is called by Wood, Anemone Thalictroides; by Gray, Thalictrum Anemonoides; by Willis, Anemonella Thalictroides. The later editions of Gray's botany agree with Willis. All botanies agree in calling the Wood Anemone, Anemone nemorosa

These flowers have so many points in common that they are often mistaken for each other. I have found it interesting to study these plants separately, and afterwards compare them.

The best order of observation is found in Eliza A. Youmans' "First Book in Botany," and in Apgar's "Plant Analysis." It is as follows: 1, root; 2, stem; 3, leaf; 4, inflorescence; 5, calyx; 6, sepals; 7, corolla; 8, petals; 9, stamens; 10, anthers; 11, pistils; 12, ovaries; 13, stigmas; 14, fruit; 15, seeds; 16, habitat; 17, locality; 18, remarks; 19, date.

The order of leaf observation is: 1, kind; 2, venation; 3, margin; 4, base; 5, apex; 6, lobes; 7, sinuses; 8, shape; 9, petiole; 10, color; 11, surface; 12, arrangement; 13, vernation; 14, remarks.

No other study has such a complete and exhaustive nomenclature, and, hence, no other study affords so good a drill of observing powers. Having observed each of these plants growing in its native soil, dig up enough for a class to work on. I shall not present a separate study of each of these plants, but I will here present a comparison of the two, in order to bring out first, their points of similarity, and hence, their family characteristics; second, their points of difference.

COMPARISON OF

	RUE ANEMONE.	WOOD ANEMONE.
Root. Stem.	Thickened tuberous. Smooth, erect.	Fibrous. Horizontal underground giving off a smooth scape
Leaves.	Compound leaflets round- ish, 3-notched, heart- shaped at base.	Compound, leaflets wedge shaped, more or less cu- and two-parted.
Inflor-	Several in an umbel.	Solitary.
Calyx.	White or pale pink, like petals.	White purple outside.
Sepals.	4 to 9. Oval.	4 to 9. Oval.
Corolla.	None.	None.
Petals.	None.	None.
Stamens	. Very many.	Very many.
Anthers.	Yellow, two cells.	Yellow, two cells.
Pistils.	Several in a cluster.	Several in a cluster.
Ovaries.	One to each pistil.	One to each pistil.
Stigmas.	Pointed.	Straight.
Fruit.	Dry, a one-seeded pod (d'henium).	Dry, one-seeded.
Seeds.	One in each pod.	One in each pod.
Habitat.		Margins in woods.
Locality.		Glen Cove, Long Island
Remarks		

From this comparison it will be seen that the chief points of difference are found in the root and leaf.

An important feature of all the anemones is in the circle of leaves (bracts) below the flower. In some species their involucre, as it is called, is very close to the flower. In other species it is remote from the flower. When very near the flower it is often mistaken by the student for a calyx.

These anemones are usually among the first plants which the

^{*}In the old classification (see Barton's Botany) the Anemone Thalictroides appeared as the Wood Anemone,

school botanist attempts to analyze. He has been taught that flowers have sepals, petals, stamens, and pistils, and it comes upon him like a shock to find that his very first plant is an exception to the rule, having no petals at all.

The anemones belong to a great family of plants, known as the Ranunculaceæ, or crowfoot family. To this family belong the buttercups, clematis, larkspur, columbine, marsh marigold, meadow rue, coptis, aconite, and many others.

According to Willis there are 540 species of crowfoots growing in temperate zones and cold climates.

It is a popular superstition that the anemone grows only where the wind blows. It is often found on windy hill-slopes, but it favors the seclusion of woods.

Pupils should be required to procure specimens of these plants after their having been studied, and press them. The dried specimens should be mounted upon sheets of paper, or bristol board, and laid away for future use.

The writer is a firm believer in plant study, and in having pupils preserve plants for future use. But it is of small value to the child to collect a miscellaneous assortment of dried plants, which he has not studied, and whose names and most obvious characteristics he does not know.

MEMORY GEMS.

Whose young and half transparent leaves scarce cast A shade, gay circles of anemones Danced on their stalks.

-Bryant. -" The Old Man's Council."

Thou didst not start from common ground, So tremulous on thy slender stem; Thy sisters may not clasp thee round Who art not one with them.

Thy subtle charm is strangely given,
My fancy will not let thee be—
Then poise not thus 'twixt earth and heaven,
O white anemone! -Elaine Goodale-" Anemone."

Anemone, so well Named of the winds, to which thou art all free -George MacDonald-" Wild Flowers."

Foods and Food Plants.* II.

By Clarabel Gilman.

WHEAT AND WHEAT BREAD.

WHEAT AND WHEAT BREAD.

This study of wheat as a food is conveniently divided into four sections, each one of which will furnish material for one, or perhaps two, lessons. Besides the articles used in experiments on combustion, the teacher will find it well to have a collection including an abundance of ripe grains of wheat, some dried specimens of wheat plants and blossoming wheat, young wheat in different stages of germination, a quantity of fine white flour, and some entire wheat flour, and the different cereal products from wheat in bottles. Most of these things will be gladly contributed by the children. Wheat will germinate readily in boxes of clean sand, or even on moist blotting paper, if kept sufficiently warm and damp and not covered too closely from the air.

I. INTRODUCTORY LESSON.

1. Review experiments in combustion.—Show carbon in food and in breath. Oxygen combines with the carbon we get from food, thus giving heat to the body. An abundance of oxygen is needed to keep up combustion in the body, just as it is to keep the fire burning in a stove. It is as necessary to ventilate our rooms as it is to open the draughts in a furnace when we want a hot fire on a cold day. For a hot fire we must have good fuel. For the bodily fire we must have good food. Good food contains carbon, nitrogen, phosphorus, and other substances needed by the body in good proportions, and in such a form that the stomach can digest them without too much difficulty. We need much carbon to be oxidized in our bodies and give us heat, and about one-fifth as much nitrogenous food to keep the body in repair.

2. To have strong, healthy bodies, we must do three things: Eat an abundance of nourishing food. Give our lungs all the fresh air they need. Take plenty of exercise in the open air.

3. Bread is one of the best of foods.-It gives us fuel for our fire and material to build up the body. Bread is made from grains. In this country chiefly from wheat and corn.

II. THE WHEAT PLANT.

1. Roots.-Fibrous. When the seed germinates, a single primary root grows out first from the embryo, then new roots start soon afterward from the stem of the plumule.

Illus.-Germinating wheat and Fig. 1.



Fig. 1

Fig. 2.

Fig. 1.—Plant of winter wheat making its early spring growth. The roots at the base of the stalk, around the withered grain, are formed in the autumn and die at the end of the winter, while the spring roots start higher up on the stem, just below the leaves. (This and the other figures in this article copied from Henze.)

Fig. 2.—Flowering spike of wheat in blossom, showing the divisions of the spike—spikelets—arranged alternately on opposite sides of a jointed axis. The stamens have discharged one-third of their pollen within their own flowers, then protruding between the open glumes have dropped the rest into the air, a part no doubt to fall upon the stigmas of the open spikelets lower down on the spike.

Stem.-Hollow, except at the joints, or nodes. Illus.-Dried specimens.

3. Leaves.-Alternate in two ranks, parallel-veined, long, linear, taper-pointed, grass-like sheath of leaf.

Takes place of petiole. Open down one side. part of the sheath growing up above the point where it joins the blade.

Illus .- Dried specimens.

4. Flowers.-Spike. The whole, long, straight, stiff clus-

Consists of many smaller parts, called spikelets.

Spikelet.-A cluster of two or more flowers, surrounded by several small leaves, called glumes.

Flower.-Three stamens.



Fig. 3.



F10. 3.—Magnified pistil of wheat with its two plumose stigmas.
F10. 4.—Vertical section through a germinating wheat grain. The
bryo consists of the thick cotyledon which lies against the albumen of
seed, the plumule of four leaves just pressing up towards the light,
the primary root, which has burst its root-sheath, and is pushing d
into the soil.

One pistil with two stigmas.

Illus.-Figs. 2 and 3, and dried specimens.

5. Grain.-Not the seed alone, but the seed with the ovary grown closely to it.

Seed.-Albumen. Food for the young plant; largely starch. Embryo.-The germ, or young plant in the seed,. (On front side of grain see embryo, covered with only a thin skin.)

Cotyledon.-Only one.

A thick leaf pressed against the albumen.

Plumule.-Bud consisting of short stem and first leaves of

Caulicle.-Tiny stem on which cotyledon and plumule are

Illus.--Fig. 4, and wheat grains, both dry and soaked.

6. Wheat, a Grass.—Stem hollow, with solid joints. Leaves two-ranked, with open sheaths.

Flowers in spikes, with glumes.

Fruit, a grain.

Illus.-Compare dried plants of wheat with other grasses, if they can be obtained.

This lesson, simple as it is, presupposes that the class have already studied some of our common flowering plants enough to become familiar with the most important terms used in describing them. The work on the grain alone will be best done if an entire lesson is devoted to it. For children who have not studied plants it will be necessary to simplify the processary to see the processary to be sufficient to the processary to see the processary to be sufficient to the processary to the processary to the processary to be sufficient to the processary to the processary to be sufficient to the processary to t en who have not studied plants it will be necessary to simplify the lesson

the leaves are described as two-ranked because they form two vertical rows down exactly opposite sides of the stem. This character is one means of distinguishing grasses from sedges, which always have leaves in three ranks. The ligule is the part of the leaf that grows up above the base of the blade just where it joins the sheath.

The whole flowering cluster is the spike. Each separate portion of a spike is a spikelet. Each spikelet contains two or more flowers surrounded by small leaves, or bracts, called glumes. Unless the children have learned that flowers may have neither calyx nor corolla, that stamens and pistil are the essential parts of flowers, they will not understand how the wheat can have blossoms. There are two delicate scales—the so-called lodicules—close to the ovary, which botanists explain as probably the vestiges of a perianth, but they need not be considered in this lesson.

III. WHEAT-RAISING AND FLOUR-MAKING.

1. Where raised .- In the Old World, from China to Norway. In this country, from the Atlantic to the Pacific. Probably a native of western Asia. Cultivated from the very earliest times. Found in Egyptian pyramids, and mentioned in Chinese records before 2,000 B. C.

Illus.-Map of wheat belt, Frye's Geography, p. 131.

2. Wheat farms of the West.-Cover many square miles in the section south of the Great Lakes and on the Western prairies. On these vast farms the use of machines drawn by horses has entirely taken the place of the old methods of cultivating and harvesting by hand. Machines called headers are used in harvesting, which not only cut off the heads with but little of the straw, and thresh it as soon as cut, but also leave the sacks of wheat scattered over the field. Wheat exhausts the soil, hence it should be grown in rotation with other crops. Large tracts of land in the West have become exhausted by the cultivation of wheat, and are now given up to other crops

3. Amount of wheat produced.-In 1894 the United States produced 460,000,000 bu. of wheat. Ohio led with 48,000,000, then came Indiana, Minnesota, Kansas, and North Dakota, with Illinois and California close behind. In the estimate of the world's production of wheat, made by the Hungarian government in 1895, the following were the figures for the four largest wheat-producing regions of the globe: Russia, 415,000,000 bu.; the United States, 400,000,000 bu.; India, 237,000,000 bu.; and

Hungary, 150,000,000 bu.

4. Flour-making.-Largest flour mills as well as largest wheat farms in the West. Minneapolis, on the Mississippi at the Falls of St. Anthony, has the largest flour mills in the world, which in 1890 turned out 100,000 barrels of flour a week. St. Louis ranks second in the quantity of flour manufactured yearly. In the mills of Minneapolis wheat is ground by pairs of small rollers, each pair breaking it only a little. After passing through each pair of rollers the meal is separated into bran, fine flour, and middlings. The only part that goes on to be ground further is the middlings. In 1890 the products of the flour mills of Minneapolis were worth over \$27,000,000.

5. Export of flour.-Much of the Minneapolis flour is shipped from Duluth, at the head of Lake Superior, down the Great Lakes and the St. Lawrence river to New York and Montreal. Immense quantities of wheat are received at Chicago and sent off toward the seaboard every year. Among American cities New

York, San Francisco, and Baltimore take the lead in exporting wheat and flour.

wheat and flour.

Wheat was found in the lake dwellings of Switzerland, and by Dr. Schliemann on the site of ancient Troy, showing that its cultivation was practiced in the very earliest days of agriculture.

The new process of gradually crushing wheat by rollers has taken the place of the old method of grinding between millstones. By this "gradual reduction" process the grain may go through as many as seven "breaks" by as many pairs of "rolls." Since the meal is punified and separated after each break, there is no danger of grinding up the bran with the fine flour, or of "killing" the fine flour by overmuch grinding. The three principal grades made in this way are patent or middlings flour, baker's flour, and low-grade or bran flour. For further particulars in regard to milling in Minneapolis see an article on "Minneapolis in 1890" in the New England Magazine for September of that year, also the article "Flour," revised by Chas. A. Pillsbury, in the new edition of Johnson's Encyclopedia. An article on Dakota wheat fields, in Harper's Magazine for March, 1880, gives pictures of ploughing, sowing, and leaping on the great praire farms.

IV. BREAD.

1. Made from wheat flour with water or milk and water, yeast and salt, and sometimes small quantities of sugar and butter.

These are mixed together, and the dough is raised by the yeast.

Wheat flour contains:

Starch in large amounts.

Gluten in the right proportions.

Contains nitrogen.

Is adhesive and very tenacious and elastic, when mixed with water.

The best flour is yellowish-white, because it contains gluten; pure white flour is nearly all starch.

Illus.-Put some wheat flour in a muslin bag, and knead it under a stream of water. The water will be made milky by the starch that will be washed away, while the sticky, yellowish substance left in the bag will be gluten.

2. Yeast.—A microscopic plant.

Grows and reproduces by feeding on the sugar, nitrogen, and salts in the dough.

As the yeast grows, it breaks up sugar into alcohol and carbonic-acid gas.

Carbonic-acid gas forms bubbles, which are held by the tenacious gluten, making the loaf light and spongy.

Kneading makes the dough elastic, and breaks up the bubbles of gas into smaller ones, so as to give a finely porous loaf.

3. Baking.-Kills the yeast plant, and stops the fermentation. Expands the carbonic-acid gas, and makes the bread light.

Drives off the alcohol.

Makes the starch grains burst, so that they can be easily digested.

Stiffens the gluten.

Changes the starch of the crust into gum and sugar, thus flavoring the loaf.

4. Raised bread may be made from:-Entire wheat flour. The best of this is made by grinding the whole grain with only the outer husks removed.

This flour retains most of the nitrogenous matter in the wheat, but without the indigestible parts of the bran. Should be ground very fine.

Fine white flour.

If light, and well cooked, this bread is easily digested and nourishing.

5. Cereal foods from wheat.-Rolled wheat, wheatena, wheat germ meal, etc. All good, particularly for the young.

Macaroni and vermecelli. Made from hard Italian wheats, rich in nitrogen.

More nourishing than bread.

Under the husks of the wheat grain is a layer of cells rich in nitrogenous matter, or proteids, and also in phosphates. These cells are called the gluten layer. Inside and surrounded by the gluten layer is the albumen of the grain consisting of large cells filled with starch grains, between which are fine proteid grains. "Hard" wheats have the starch grains completely imbedded in proteids, and are rich in nitrogen, but may contain so much gluten as to make too firm a bread. Very hard wheats are better for macaroni and other cereal products. "Soft" wheats have a mealy albumen on account of the many air spaces between the starch grains. Very soft wheats are nearly all starch, and are better for starch-making.

By improved modern methods of milling the husks of the wheat are removed, while the nutritious parts of the gluten layer are retained, making an entire wheat flour that contains all the valuable parts of the grain. This flour should be ground very fine in order not to irritate the digestive organs.



Critical Language.

By A. C. Scammell.

For Seventh and Eighth Grades. Multigraded School, Grade 4, both divisions,

Luce's "Writing for the Press" has some valuable lints that are not found in our language books.

With the double purpose of interesting teachers in this book, and of helping those earnest pupils who watch for their share in the educational papers, we glean a few of these helps:

Of two words that mean alike, use the shorter.

witness-sec floral offering-flowers proceed-go long lengthy—loreside—live procure—get species—kind erected—built obtain—ge purchase-buy sufficient-enough contribute-give

From the following, omit the words in brackets, as needless:

It cannot be (possible) (Over) again A cottage (house) (Finally) settled Both (of them) (New) beginner
In (the year) 1896
In (the city of) Boston
(First) began (Full) complement (Future) prospects Gather (together) (Practical) benefit A grove (of trees) They seem (to be) good boys Red (colored) A (social) dance First (of all) The (last) end (Most) perfect

Omit the participle from these phrases:

Accept of Address to Examine into Fill up Follow after Return back Approve of Bridge over Combine together Rise up Seek for Deliver up. Dress up Shut up Eat up Sink down Enter in

Do not use at length for at last. Say, "A man named Brown," not " A'man by the name of Brown."

Use begin instead of commence. A telegraphic message is a despatch not a dispatch. Do not use dirt for earth, loam, gravel, or sand, or for anything that is not filthy.

Say the first three, the second three, the last three, not, the three first, etc.

Do not use directly for immediatly. Say woman and man, not lady and gentleman except when social distinctions are made.

When you mean leg say leg not lower limb. Do not say that anything occurs unless it takes place by chance.

Funerals and weddings do not occur. Do not use off with from or of. As "He jumped off (from) the table." He took the book off (of) the table.

Do not say "An old man seventy years of age." A young girl

Partake means to share, to take part of. One cannot say, "Be ing left alone, he partook of a hearty meal."

Use a, not per, before English nouns. Do not say per day, per month, but a day, a month.

A person may receive a thing from, but never of another.

Relatives is a better name than relations to express kindred. Say, "He has received \$10,000, not "the sum of \$10,000."

Do not begin a sentence with figures.

To implies motion. "I was down to the hall," is wrong. "I went down to the hall " is right.

Remember that around denotes rest, and round, motion. Never write, "this p. m." Say whether it is afternoon or evening that you mean.

Say, " Not that I know," not, " Not as I know,"

Do not use most for almost. "It was almost (not most) 5 o'clock." Say "A common friend" not, "A mutual friend."

Do not say storm for a gentle rain or snow. Storm implies a violent movement in the atmosphere whether with or without snow, rain, or sleet.

Remember that the simplest form of the infinitive follows the past tense, as "I meant to tell you," not "I meant to have told you."

Do not use the present tense for the future. Not "Vacation comes in one week," but " will come, etc."

The apostrophe. Pupils who use the apostrophe correctly when the idea of ownership is plain often omit it in forms like "I am sure of the letter's reaching her," "Two worth," "Anybody's else" (not "Anybody else's"). "Two dollars'

A few prominent newspapers omit the period after abbreviated titles. As "Mr James White." Observing pupils may notice this, but should not be encouraged to follow a form which is not general.

They also wonder at the omission of the comma in the address of writers, as "Elmer Davis Principal Lincoln School Chicago Ill.'

They find that the rules for punctuation and capital letters in their language books are not closely followed in their other text-books, or in any books that they read.

They need to be told that the fashion changes in regard to these, as in everything else; that to keep up with the fashion they must not only read, but study the latest good writers; that, in this, as in other matters, they must use their own best judgment, until they acquire what Mr. Luce calls "a literary conscience," that will become their best guide.



Language for Primary Grades.

By MARGARET J. CODD.

TALKS ABOUT IRON AND OTHER METALS.

For materials for these lessons have ores of iron (the grape iron of the Lake Superior mines makes a good specimen); pictures of iron mines and furnaces; and let the children bring articles made of iron, such as wire, watch springs, nails, needles, knives, etc., to illustrate its qualities and uses. The more objects you have the more interesting the lesson will be.

What follows is intended as a brief summary of work done, which occupied several days. The intelligent teacher will readily perceive what has been drawn from the observation and experience of the children, and where their knowledge was supplemented by information furnished by the teacher.

Our review talk was somewhat as follows: Eddie, you may tell me something about iron. "Iron is the most useful of metals." Where is it found? "It is found in all parts of the world." How do we get it? "We must dig it out of the ground." What do we call these places, where it is dug? "We call them iron mines." What do we call the iron when it is dug from the mines? "We call it iron ore."

Is iron ore pure iron? "No, it is iron mixed with other

things." How can we separate the iron from these things? "We must melt the iron ore in a furnace." How can we separate the iron from these other What color is iron ore? "It is blackish gray."

The eighth row may stand. You may each tell me some-

heavy? "It is hard to lift it."

Mary—"I-or is heavy." How do you know that it is

Mary.—"Iron is hard." How do you know that iron is hard? "You cannot stick a pin into it, nor cut it with a knife; you can feel that iron is hard."

Johnny.-"Iron is elastic." What do you mean by elastic? "I mean that it goes back into its shape." Tell me something else that is elastic. "A rubber ball is elastic."

Fred.—"Iron is ductile." What do you mean by ductile? "I mean it can be drawn out into wire."

Annie.-"Iron is brittle." How do you know that it is brittle? "If you drop a bit of cast iron it often breaks."

Rosy.—"Iron is sonorous." What do you mean by sonorous? "It makes a clear ringing sound like a bell."

Tom.-"Iron is malleable." What do you mean by malleable? "I mean iron can be beaten into shape." Where have you seen men beating or hammering iron? "I have seen them

hammering iron at the blacksmith's."
Robbie.—"Iron is fusible." What does fusible mean? "It means iron will melt." Did you ever melt anything, Robbie? "Yes, I have melted lead." What could you do with the lead when it was melted? "I could pour it like water." What did you make of it? "I made bullets and anchors for my little

You need a very hot fire to melt iron; but when it is melted it will pour like lead into molds. When it has cooled we call it cast iron. You may tell me some articles made of cast iron. The legs of our desks are made of cast iron; stoves are made

When iron is hammered or beaten what does that do to it? "It makes the iron tough." What do we call it then? "We call it wrought iron." You may tell me some articles made of wrought iron. "Iron plates for steam boilers, ships' anchors, ploughs, wheel tires, horseshoes, shovels, spades, nails, spikes, etc., are made of wrought iron."

Yes, everything the blacksmith makes is of wrought iron. What are these, Bertha? "Those are your scissors." What are they made of? "They are made of steel." What is steel made of? "Steel is made of iron." You may tell me some other things that are made of steel. "Knives, razors, watch springs, needles, pens for writing, etc., are made of steel.'

You may each see if you can tell me something made of (With pupils who are old enough, the processes of smelting iron ores and of making steel may be described.)

Who can tell me some other way in which iron is used. "Iron is used for medicine. We have iron in us; it is iron that helps to make our blood so red."

Tell me again what iron is. "Iron is a metal."

The sixth row may stand. You may each name a metal.

Annie.—"Silver is a metal." What color is it? "Silver is white." What do we make of silver? "We make money,

spoons, forks, etc., of silver."

Josie.—"Gold is a metal." What color is gold? "Gold is yellow." What do we make of gold? "Money and jewelry are made of gold."

Dick.—"Lead is a metal." What can you tell me about ad? "Lead is very heavy." What do we make of lead? Bullets, pipes, etc., are made of lead."

Willie.-"Zinc is a metal." Where have you seen any zinc? "There is some zinc under our stove at home.

Albert.-"Copper is a metal." What color is it? "It is a reddish color." Can you show me a piece of copper? "Yes,

this cent is made of copper."

Mary.—"Tin is a metal." What color is it? "It is whitish, something like silver."

What can we make of tin? "Iron pans are covered with tin to keep them from rusting."

Theodore.-"Nickel is a metal." You may tell me something made of nickel. "This five-cent piece is made of nickel. Are there any other metals? "Yes, there are many others." How do we get all these metals? "They are all dug out of

the ground." Wha do we call the men who dig them for us? "They are called miners."

Do you think it is light or dark in the mines? "I think it How can the miners see? "They have to carry is dark. lamps."

Do you think it safe or dangerous in the mines? "There is danger in the mines." What sometimes happens? "Sometimes the walls or roof of the mine fall in and the miners can-not get out." What else sometimes happens? "There is gas in the mines. This sometimes explodes and the miners are killed."

Yes, we should always try to remember how hard men have worked to dig these metals out of the ground, and to make them into so many beautiful and useful things for us.

Blackboard vocabulary:

Useful, Elastic, Steel. Wrought Iron. Iron, Hard. Gold. Ore. Brittle, Blackish, Malleable, Zinc. Sonorous, Lead. Mines. Gray. Fusible, Copper. Ductile. Silver. Metal. Cast Iron. Tin.

The children learned to use these words, to write them, and to give their meanings. And when our talks were over the pupils gave a written reproduction, covering the main points of the subject.

Fistory and Civics.

The Story of April 19th, 1775.

By Lizzie M. Hadley, Lowell, Mass.

(Adapted to Second Year-)

When miniature representatives from nearly every European nation are found in one school-room, the problem of teaching patriotism to such a polyglot company becomes a puzzling one.

Yet these little folks are our future citizens, the men and women who are to make and keep our laws, and, unfortunately, break them. Consequently we cannot begin too soon to stamp out germs of anarchistic doctrines, and train them to love and honor the country of their adoption.

We may hope to see them, if taken thus early, become peaceful, law-abiding citizens.

Try to impress them with the fact that the advantages they enjoy cost infinite patience and years of hardship and danger. Recount the brave deeds and tell incidents in the lives of the founders, statesmen, and soldiers of the nation.

Teach patriotic songs and poems. The story of "Concord and Lexington," may well form the nucleus of the history of the "Revolution." (In telling this story to the very little ones, we will suppose the April calendar is upon the blackboard and that a tiny flag sketched with colored crayons occupies the space allotted to the 19th.)

You may look at the calendar and tell me what day of the month next Monday will be. ("The 19th.")

What do you see beside the date? ("A flag.")

Who can tell me something about the day? ("It will be a holiday.") Yes, upon that day, there will be no schools and a good many of the mills and shops where your fathers work will be closed, and all over the country flags will be flying from every flagstaff.

I think, in order to make you understand all this, I must tell you of something that happened upon the 19th of April, one hundred and twenty-two years ago.

Would you like to know how long a time that is? * * * Well, think of the very oldest person you have ever seen, and it was years and years before that person was even a tiny baby.

At the time this happened, the English claimed almost all of this country and the people who wished to live here had to pay money to the English king, just as your fathers pay rentmoney to the men who own your houses.

Now most of the people in this country had to work hard to earn even enough to live upon, and after awhile they write a letter, telling the king how poor they were and begging him not to ask for so much money.

What do you suppose the king did?

Perhaps you think he was a wise and good king who wanted to make his people happy?

No, indeed. He was a selfish, greedy man, and the more money he had the more he wanted, but at last, he asked for so much that the people refused to pay it.

Then, you may be sure, there was trouble enough, for of

course the king was angry.

Soon he said, "I will send my soldiers to America, and then the people will not dare to disobey me. So he sent great shiploads of soldiers across the ocean to Boston.

The Boston of that time was a queer little place with crooked streets and lanes and green fields where cows were pastured. It wasn't much like the big, bustling city we find today. But the people who lived there were brave and independent and showed the soldiers pretty plainly that they didn't mean to submit to the king, and at last they began to talk of war and of driving the soldiers back to England.

So they got together a great many guns with powder and shot, and stored them in safe places, and then began to drill companies of soldiers. These soldiers were called "minutemen," because they were expected to be ready to fight at a minute's notice.

The king's soldiers thought if they could get hold of the guns, powder, and balls the people had hidden away, they would then be obliged to obey the king.

So they sent out men to watch the Americans, and these

men found that some of the stores were at Concord.

Concord, you know, isn't very far from Boston, and one night, when they thought everybody else was asleep, some of the soldiers got into boats and were rowed over to Cambridge, and from there they marched away to Concord.

Now, all this time, although the English didn't know it, the Americans had been watching them, and they guessed, at once, where the soldiers were going, and one of them, whose name was Paul Revere, got into a boat and was rowed over to Charlestown, where he got a horse and went riding into the country, to tell the people that the soldiers were coming.

Then bells began to ring, guns were fired, and soon the "minute-men" from all the nearest towns were hurrying towards Concord to protect the stores hidden there.

At Lexington the soldiers fired upon some of these men and after killing eight and wounding ten more, went on to Concord where they burned or threw away all the guns, powder, and shot they could find, besides breaking open a great many barrels of flour and cutting down the liberty-pole.

I am sure I don't know what more they would have done perhaps burned the town, itself,—if by this time a good many of the "minute-men" hadn't got there.

I suppose the soldiers thought it would be a fine thing to make these men run, so they began firing upon them. Instead of running the men fired back, and pretty soon they were all fighting and trying to kill each other.

After awhile so many of the soldiers were killed or wounded that the rest became frightened and started towards Boston. But they had a pretty hard time getting there, for the Americans chased them nearly all the way, firing upon them from behind trees, fences, and stone-walls until they were glad enough to get back where their big ships could protect them.

Perhaps they wouldn't have been able to get back at all if more soldiers hadn't marched out of Boston to help them. As it was, I am sure they were all tired enough to rest for a while.

This battle was fought upon the 19th of April, 1775, and it was the first one of the many the king's soldiers had to fight, for it was more than six years before the king found that it was of no use to try to conquer the Americans.

By that time a good many of his soldiers had been killed and the rest were tired of fighting, and glad enough to go back to their homes in England.

(Read "Paul Revere's Ride," explaining difficult words and questioning to bring out the meaning.)

Little booklets, as souvenirs of the day, may be made by requiring the children to reproduce in writing as much of the story as they can remember.

Fold in book form and place between covers of cardboard or manilla paper.

Ulysses S. Grant.

(Born 1822. Died 1885.)

On April 27 Grant's tomb, at Riverside park, will be dedicated with appropriate ceremonies. There will be a naval parade, as well as one by land. The dedicatory prayer will be offered by Bishop Newman, who was a personal friend of General Grant. General Horace Porter, who is president of the Grant Association, will deliver an address, and present the monument to Mayor Strong, who will receive it on behalf of the city. President McKinley will also deliver an address.

Grant's monument is, perhaps, the most interesting memorial ever raised by the voluntary efforts of a people. In its inception its only parallel is the tomb of Napoleon, which represents also the tributes of his nation.

The design of the monument is an original creation of the architect, John H. Duncan. In its compactness and symmetry it may be said to be typical of Grant himself; its square Doric base being emblematic of his military career; the circular cupola of his civil life; and the stepped dome tells at once that it is the tomb of a warrior. The exterior is of granite, while the interior is all of white marble. The opening of the crypt is before one upon entering the porch at the southern exposure. The interior is the shape of a rotunda overhead,

and the porch is approached by a flight of steps seventy feet wide.

There are four approaches; one from the east and west, a path from Claremont, and one from the south.



Gen. U. S. Grant.

The principal events in General Grant's life are briefly given for the use of teachers who wish such material:

Born at Point Pleasant, Ohio, April 27, 1822. Afterward lived at Georgetown, Ohio. His father, Jesse R. Grant, was a tannerand farmer. The Grant family came originally from England. Young Ulysses went to the village school and did "chores" for his father. Disliked the tannery; preferred the farm. When 15 attended school at Maysville, Kentucky, and afterward a private school at Ripley, Ohio. In his 17th year received a cadetship appointment to the United States military academy, at West Point. An excellent mathematician, and he intended to fit himself for a teacher of mathematics. An especially fine horseman. Graduated in 1843, twenty-first in a class of thirty-nine, receiving the commission of brevet-second lieutenant. Assigned to the fourth infantry.



Tomb of General Grant, New York. To be dedicated April 27.

Served through the Mexican war, fighting in every battle but that of Buena Vista. Married Miss Julia Dent, 1848. Promoted from brevet-captain to captain with full rank and pay, 1853. Resigned from the army, 1854, and engaged in farming near St. Louis, Removed to Galena, Ill., and went into the leather trade.

When the Civil war broke out Grant began drilling a company of Galena volunteers. Appointed colonel of the Twenty-first Illinois Volunteers. Reported to General Pope in Missouri. Commissioned a brigadier-general of volunteers. Battle of Belmont, Nov. 7. Fort Donelson, Feb. 15 and 16. Grant made major-general of volunteers and commander of the army of the district of West Tennessee.

Battle of Shiloh, April 6 and 7. Succeeded General Halleck in command of the department of the Tennessee in July. Bat-

tle of Iuka, Sept. 19. Corinth, Oct. 3 and 4.

January, 1863, Grant took command of all the troops in the Mississippi valley. Battles of Port Gibson, Jackson, Champions' Hill and Black River Bridge. Began the siege of Vicksburg. Received its surrender July 4. Made a major-general in the regular army, and took command of the military division of the Mississippi. Gained the battle of Chattanooga Nov. 23-25.

February, 1864, Grant was made lieutenant-general, and in March assumed command of the armies of the United States. He now made preparations to crush the army of Northern

He now made preparations to crush the army of Northern Virginia, and fought his way to the James river.

Battles of the Wilderness, Spottsylvania, North Anna, and Cold Harbor. Siege of Richmond and Petersburg begun in June. His army lay on both sides the James river, but many months passed before he could get possession of the railroads which supplied Richmond. Petersburg fell April 2, 1865, and Richmond, April 3. Lee surrendered April 9.

Grant returned to Washington to disband his armies. Grade of general created for him by Congress. Made secretary of war in Stanton's stead. Elected president in 1868. Re-elected in 1872. In 1882 appointed one of the commissioners to negotiate with Mexico for a commercial treaty. March 4, 1885, placed on the retired list of the army with full rank and pay of general. pay of general.

Died at Mount McGregor, N. Y., July 23, 1885, and buried at Riverside park, New York city, August 8.

Lessons on Civil Government. II.

The Road.

Governmental units involved, Road Disrict, Township, County. (In New England, Township only; in Southern States and a few Western States, County, or Road District and County only. If the school is within an incorporated city or village, study the street first, then pass to the road outside

If possible, begin by discussing some actual recent exercise of the road-making function, the building of a bridge or repairing of a road in the district. Divide the subject into several lessons. Make haste with great deliberation. Do not expect much more in the first talk or lesson than the development of a few points of uncertainty to be investigated and reported on at next lesson. Don't let little Johnny Overseer monopolize the time of the class but, of course, use the facts he can give the class, after the others have exhausted their

Develop first the complete community of interest in roads. Let the discussion be full; consider no point trivial which has a bearing on the subject.

Who owns the roads? (Accept no vague answer such as "the district," "the county," or "the government." Develop fully the idea that all the people own the roads.

Who makes necessary repairs in the roads? (Minor repairs are generally made by a poll-tax of so many days' work per year from male residents of the district between certain ages. The tax is generally two days' work or a sum of money fixed by law as an equivalent. This poll-tax is within the experience of the pupils and all they know about it should be

Does each man work out his poll-tax when and where he pleases? No, he. is directed by the overseer of roads. (This officer is known by a variety of names in different states.)

Suppose the poll-tax were not sufficient to make needed repairs or suppose materials were needed for bridges or other constructions, where would they be obtained? The overseer would hire men to do the work or would buy the material.

Where would he get the money? (Develop the method of

levying road taxes in your state. In states west of the Alleghany mountains such taxes are generally levied by a county

board, called in most states the county commissioners.)

Who are the county commissioners? They are men elected by the people of the county to attend to the public business. (In some states the commissioners are elected from the county at large; in others each is the representative of a limited portion of the county, which elects him. Be sure the pupils understand the local system.)

The pupils should be led to make the following statements,

modified in detail to fit their system:

The commissioners determine (in a manner to be studied later) how much money will be needed during the year for roads and other purposes for which the county has to spend money, and orders that each person who owns property within the county shall pay into the treasury of the county a certain part of the value of his property, this part being large enough so that when all the taxes have been paid the county will have enough money for its needs.

Since a county is a rather large district and contains many roads, the commissioners divide it into smaller units, called road districts, each of which has a road overseer who attends to the repair and construction of roads in his district.

When a new road is needed how is it obtained?

The people who want the new road ask the commissioners to have it built. The request is generally mad in writing and is called a petition. If the road appears to be needed, the commissioners order it opened.

How is the land obtained upon which the road is con-

structed?

In most of the states in which the United States survey has been made, road are loated on section lines where this is possible. When it is necessary, a road may be constructed across a tract of land without the consent of the owner. In such cases the owner is paid an appraised valuation. Discuss the justice of this with the pupils. Lead them to see the principle involved; namely, that the interest of the person shall not be allowed to thwart the interest of an entire community. This power of aking specific private property for public use is called eminent domain.

Are all roads of equal importance?

The pupils will see that while some roads are used only by a few people who live along them, others are thoroughfares for travel between cites or villages, and are used by hundreds or thousands of people.

Is there any difference in the way these roads are maintained?

As a general practice the less traveled roads are kept up almost entirely by the poll-tax of the district-sometimes the persons living along the road-while money from the county taxes is expended upon the more traveled highways. If instances of this distinction fall within the puipls' experience, discuss them from the standpoint of justice and expediency. Point out that the distribution of expenditures is a discretionary power of the officials, and make this the basis of a discussion, to show the necessity for wisdom and honesty in the officials.

The county system, which has been used in this outline as a basis of discussion, is found generally in the South and in some of the Western states. In New England the township exercises most of the powers here ascribed to the county, while in the Middle Atlantic and many Central and Western states there are township as well as county boards, both of which have jurisdiction over roads. The county board generally has the exclusive power of opening new roads and of eminent domain. The county board, also, as a rule, builds the bridges and makes the expensive repairs on the more important thoroughfares, leaving to the township the care of roads of only local importance. Confine the attention of the pupils, for the present, to their own system.

The pupil should gain from this study of roads an idea of a public interest and of public property, an understanding of the necessity for officers to attend to public business, and of their true position in society, that of agents for the people; an idea of some of the smaller governmental units in their relation to roads, considerd as the type of an important class of pub-

lic interests.

The School Journal.

NEW YORK & CHICAGO.

WEEK ENDING APRIL 17, 1897.

An effort has been made by the women teachers of New York city to have their wages increased; they are to be commended, for it is the duty of all laborers to get all they can for their work. The basis of the claim for higher wages was laid in the fact, that they were now paid less than many other employees of the city; this, we think, was not the strongest argument. That they have to make professional preparation, that they do professional work, that no one can do the work they do without professional skill and knowledge—these we deem the strong grounds for demanding wages corresponding to those paid other professional laborers.

Real progress will only be possible when a large number undertake the necessary work of ascertaining facts and deducing laws; this is as true in education as in physical science. For example, what should a child who has spent one year in the first grade be able to do and have learned? The opinions of at least one thousand men and women, who are in a position to observe, and who are capable of observation, are needed to answer this question. The Journal would like to have the questions to be proposed to such a pupil in language, reading, number, geography, history, physiology, drawing, physics, nature, and writing; also to know what contributions in paper, clay, and wood are to be look for. It is one thing to deal in generalities; it is quite another to have the facts. We hope many will reply to these requests.

Col. Parker sends the following quotation from a lecture of State Supt. Henry Sabin, of Iowa, which, he writes, should be read by every educator in the land. It is a piece of sound pedagogics, given in terse and striking language:

"I believe that to hold up before the pupil a high percentage in examination or recitation as a criterion of success is vicious in the extreme; that such a course gives him wrong ideas of the worth of knowledge, and induces him to study through unworthy motives; that the entire marking system is a relic of past ages and unworthy an enlightened civilization; that our children should be taught that learning is valued for learning's sake alone, and that the intrinsic worth of knowledge cannot be measured by figures; that the memory of words can be estimated and tabulated, but not the power of thought, which is the outcome of knowledge properly assimilated."

A newspaper was just opened in which a paragraph stated that a man was called to his own door late in the evening to be killed by some unknown ruffians. Are we aware of the wickedness that is abroad in this supposedly civilized Christian land? Seven thousand are killed in similar ways to the above in this country annually. Have the schools anything to do with this terrible state of things? In no other country in the world is there such a state of things, except Italy; but Italy does not claim to be what we think we are. Here is something to think over, to pray over, and to act over.

The Educational Status for Women.

A chapter in the report of the commissioner of education for 1894-5 is on the "Educational Status for Women." In considering the college-bred woman, extensive quotations are made from Sara A. Burstall's book, "The Education of Girls in the United States," Among other things, Miss Burstall says: "In the women's colleges, at all events, the students must, to do justice to their instruction, work long hours. This conclusion was borne out by some of the phenomena we observed on visiting the women's colleges. In one we were informed that it was very difficult to get the students to avail themselves of the opportunities for physical exercise; they never seemed to have any time. Any experienced teacher can understand that quite as much advanced work might be done in fewer hours. Indeed, the students would then do more, as they would have more time for study."

Under the title of the "Education of Women Abroad," the conditions are treated as found in all the European countries, Japan, and India. In the Netherlands, co-education is a principle of pedagogy. Women have the same opportunities as men in the universities, and are allowed to enter for any examinations they wish. Madame Collett says of woman's education in Scandinavia, "Sweden stands first among our Northern states, in the movement for the elevation of women. This fact is unquestionably due to the liberal sentiments which Swedish men entertain for women themselves, as well as for the cause which these women advocate." Speaking of the Russian girl who goes to the Swiss universities, it is said that "she often leaves home before the age of 20; but, as a result of her eager and varied reading, her mind has matured early. Beside Russian literature, she has read the chief works of the principal foreign languages, either in the original, or in translations. Marvels of intelligence and precocity are not infrequent among them." Queen Margherita is greatly interested in girls' culture in Italy. Highly cultivated herself, she can fully appreciate the divine enjoyment of a refined mind, and her personal encouragement to any one willing to contribute to female progress in Italy is most generous." In Spain, the statement is made that "it is an exception if the school mistress knows how to read intelligently, or to write without violating the rules of orthography."

Under the subject of "Women in the Professions" a general statement is given of women in medicine, in law, and in theology.

In treating of the marriage rate of college-bred women, it is said that "the ultimate probability of a college woman's marriage seems to be below 55 per cent., against 90 per cent. for other women." Under 25 years of age they rarely marry, and the rate of marriage is lower in New England than in the West.

The third annual Congress of the Illinois Child Study Society to be held at Chicago, April 28-30 and May 1, will be a most important meeting and will be national in character. None who are interested in child study, and can afford the time, should miss this meeting. A strong program has been prepared and some of the most distinguished educators will address the meeting. A program will be printed in THE SCHOOL JOURNAL next week.

Editorial Correspondence.

St. Augustine Schools.

At previous visits I have looked forward to a visit to the Deaf and Dumb Institute in the suburbs of St. Augustine with pleasure. The principal was Prof. Henry L. Felkel, and his genial manners and cultivated mind were each attractive. While in Tampa I received notice of his death. He had done much sincere work for the schools of Florida. He began teaching in 1874. In 1877 he was appointed superintendent of Leon county, and was elected to the same position for four successive terms. In 1886 I found him at the head of the Tallahassee public schools; the next year he was appointed as principal of the De Funiak Springs normal school. In 1893 he was appointed to the principalship here, and here he spent four useful years. He was widely known in the state, having delivered lectures before teachers' institutes in most of the counties. He was a serious student of literature, as his little book, "Pictures Among Palms," shows. There are in this some poems that will arrest the attention of an appreciative reader.

On hearing of Prof. Felkel's decease the state board of education appointed as his successor Rev. Frederick Pasco, principal of the Jacksonville high school for the past eleven years. The appointment in general is considered an excellent one, but criticised by some as being the action of a board moved by political purposes. True, Prof. Pasco is not acquainted with the deaf and dumb alphabet, but he is an educator, a trained scholar and unusually competent to manage such an institution. He is not expected to teach, having assistants acquainted with the methods employed. There are several blind children here; and in all, about 50 are instructed

In going through the several rooms I could not but feel the value of manual training to this class of youth. One of the most flourishing departments is a printing office; and I believe there should be taught numerous kinds of work in wood, metal, cooking, sewing, laundering, and gardening. I believe every one of these youths could easily become self-supporting. I do not remember ever to have known a tramp belonging to this class; tramps are fully equipped with every faculty but that of industry.

The high school of St. Augustine is in charge of Prof. H. O. Hamm, of the Bloomington State normal school, Illinois. Coming to Florida in 1884 he entered in school work, and has been at it continuously. He was the assistant principal in the Jacksonville high school four years. The school building consists of eleven rooms, well furnished with single desks, maps, charts, etc.

The high school has four rooms; an assembly room, containing 100 single desks, two class-rooms, and a chemical and physical laboratory. The laboratory is fitted up with apparatus for individual work on the part of the pupils. The course requires four years.

The board of education has been fortunate also in securing the services of Prof. Oliver P. Steves, who was for many years principal of the New Jersey State model school at Trenton. Coming to this state after thirty years of work in New Jersey and New York, he improved rapidly in health, and, like many others, was

pressed into service again. As an upright man, an earnest teacher, a wide reader, possessing a cultivated literary taste, he is a decided accession to the state.

Mr. J. W. McClung, the assistant principal, is from Virginia, a graduate of Westminster college, in the class of 1886. After teaching at Moseley Hall, Fla., and Liberty, Miss., he was appointed here in 1895; his field is that of Latin and natural sciences.

I visited again the convent on St. George street, well known to all tourists. In the northwest corner of the extensive grounds are two public school-rooms, where Sister Elizabeth and an assistant teach about 120 children. The convent proper has pupils from all parts of the state, where all the branches usually taught in a boarding-school are taught. As this school has a wide reputation, I was pleased to find that The Teachers' Institute and Educational Foundations were held in the highest esteem. Sister Margaret, possessing remarkable ability as an educator, frankly declared that these papers had been of inestimable service. Here, too, Our Times received unbounded encomiums.

I found State Supt. Sheats generally commended for what he has undertaken to do for Florida; the state is certainly moving slowly upward, educationally, though in one of his papers he appealed to the "cracker" element, demanding Florida schools for Florida teachers; yet, his main purpose was plainly seen to elevate the standing of the teachers by examinations; the questions proposed follow about the standard in New York state. The teachers coming from out of the state co-operated in this effort with great readiness. Many of them had held places of importance, and had been driven here by reason of ill-health; the native element objected to further study. The system has good elements, but needs fitting to the peculiar situation. There should be summer schools of four grades. (2) Those who wish to teach should apply for admission, be examined, and admitted to third class; pursue the course, and get third-grade certificate. (3) Have a plan of study marked out for the year; at next year's summer school go in second class; pursue the course, and get second-grade certificate-good for two years. (4) Have a two years' plan of study marked out; attend summer school for two years, and go in first class, and come out with first-grade certificate—good for five years. This might be renewed for five years, on certain conditions; but a further course should be planned that could be completed during these five years, which should result in a life certificate.

Supt. Sheats is most strongly commended for his determination to raise the standard of education in Florida. Some of his steps *The Journal* opposed; especially the annulling of all certificates. But his courageous persistence in demanding continued study and higher preparation from the teachers deserves unstinted praise. So many state superintendents are merely place holders, instead of educational leaders, that the appearance of such men as Supt. Sheats must be hailed as a public benefaction.

The future of Florida is certainly to be a bright one. When her fine climate is better known the hundred thousand now wanting just such a climate will gather here and enjoy it. They will want good schools and by that time they will exist abundantly.

I lay down the pen to step on the matchless train that leaving St. Augustine at 9.30 arrives in New York at 1 p. m. next day. The Florida Special, via the Florida Central to Columbia, thence by the Southern railway, is really one of the works of man that commands praise and respect from all who have been fortunate enough to be on it. Florida friends, farewell.

A. M. K.

Eurrent Copics.

President McKinley has decided to appoint a special commission to negotiate with Great Britain for the better protection of seal life in Bering sea. The two persons chosen for this important work are John W. Foster, ex-secretary of state, and Charles L. Hamlin, ex-assistant secretary of the treasury. both thoroughly acquainted with Bering sea matters. There is some satisfaction, because Great Britain has only sent three ships, at most, and sometimes only one, to prevent illegal sealing, while the United States has maintained a big fleet in Bering sea every year.

It is said that President Dole's government is alarmed at the invasion of the Hawaiian islands by Japanese; these Orientals have been coming to those islands recently at the rate of 1,800 to 2,000 a week. Recently two Japanese ships were sent to Hawaii, and this is said to have induced the United States government to order the Philadelphia there to balance matters. The plan of the Japanese government seems to be to send so many Japanese there that they will outnumber all other nationalities, and in that way control the islands.

The situation on the frontier of Greece and Turkey is still grave. The Turkish troops are anxious to fight, and so are the Greeks, and it is doubtful if their governments can restrain them. It is reported that Greece has accepted a proposal from the powers for a Cretan assembly to decide the islands future.

The Greater New York charter has been passed by both branches of the legislature over Mayor Strong's veto, and now only awaits the governor's signature to become a law.

If Turkey accedes to the suggestion of this country, the Turkish mission will be raised in rank to an embassy. Minister Terrell has been instructed by Secretary Sherman to advise the foreign office at Constantinople, that if the sultan will send an ambassador to the United States the president will accredit to Turkey a diplomat of equal rank. This information has been cabled to Minister Terrell, who has been directed to give immediate attention to the subject.

The so-called "Log of the Mayflower," a valuable old manuscript, will soon be brought from London to Boston. This manuscript was written by William Bradford, one of the founders and second governor of Plymouth, and gives a history of that colony. It disappeared from the tower of the Old South church during the Revolution, and in 1856 was found in the Fulham library in London. Through the efforts of Senator Hoar it has been agreed to deliver the precious parchment to Ambassador Bayard to be returned to the state of Massachusetts.

The federal government has determined to put a stop to the mutilation of United States coins. A bill for this purpose was passed by the last Congress and signed by President Cleveland before he retired from office. It is very broad in its scope, while it is not likely that a young woman could be arrested under it for wearing a bangle, it is evident that it is the purpose to stop the turning of Uncle Sam's small change into such ornaments. The makers of bangles are afraid of the law, for the treasury department has been deluged with letters; especially from the West and the Southwest.

An Australian federal convention, in which Tasmania, as well as New South Wales, Victoria, South Australia and West Australia, is represented, has been in session for some time at Adelaide. Action has been taken for the formation of a federal constitution, to be submitted to the colonies. But, as in the case of the United States, after the Revolution, all the colonies are not working harmoniously toward this end. There are various and clashing interests. Neither Queensland nor New Zealand have taken part in the convention, and it is by no means certain that Victoria and West Australia will ratify the scheme proposed. Yet it may be said that confederation is in the air, and if it does not come this year, it will before many years.



For the Blackboard.

Dr. Schaeffer Reappointed.

No man in the educational field is more popular than Dr. Nathan C. Schaeffer, and the news of his appointment as state superintendent will be read with pleasure by his many friends. The first one to call him to his present position was a Democratic governor. At present both the legislature and the governor are Republican, and great pressure was brought to bear



State Supt. N. C. Schaeffer, Pennsylvania,—President of the Department of Superintendence, N. E. A.

on the governor to have a Republican appointed, but he recognized too well the eminent services rendered by Dr. Schaeffer to the cause of education in Pennsylvania to make a change in the office.

Nature Study for Public Schools.

How many people can explain, so that a child can understand, why water puts out fire, why some young squash plants bring their shells out of the ground on their backs, and others do not; or show the difference between a leaf-bud and a fruit-bud of the apple; or tell from whence all the house flies come? The world is full of such common things, about which people do not inquire. Yet, such subjects can be made very interesting to children, and they can be taken up in the schools, not as an added recitation, but as a rest exercise once or twice each week, to relieve the monotony of the school-room, and later be made the theme for a language exercise. Here are two important faculties that may be brought into exercise; accurate observation, and the power of expressing definitely what is seen.

what is seen.

The college of agriculture of Cornell university, has, under the Nixon, or Agricultural Extension bill, undertaken to assist, free of expense, all teachers who wish to introduce this work into their schools. All teachers and parents interested in this work are asked to send their address for more detailed information to Chief Clerk, College of Agriculture, Ithaca, N. Y.

Meetings of Educational Associations.

April 19-21.—Meeting of International Kindergarten Union at St. Louis, Mo.

April 20, 22.—Ontario Educational Association at Toronto. President, John Dearness, Lordon; secretary, Robert W. Doan, Toronto.

April 21-23.—Western Drawing Teachers' Association, at St. Louis, Mo. April 27-May 1,—Congress of the Illinois Child Study Society at Chicago. Meetings will be held at the University of Chicago, the Chicago Normal School.

April 29-May 1.—Northwestern Iowa Teachers' Association at Sioux City.

April 31.—Western Nebraska Teachers' Association at North Platte. President, Miss Bonnie Snow, Minneapolis, Minn. Secretary, Miss Frances Ransom, Saginaw, Mich.

May 6-7.—Michigan City Superintendents' Association at Lansing, Mich, June.—Meeting of the University Convocation of the State of New York. June 30, July 1, 2, 3.—New York State Teachers' Association at New York. Charles E. White, Syracuse, president; S. F. Herron, Elizabethtown,

June 20-July 1.- Texas State Teachers' Association at Waco.

July 6, 7, 8—New York State Music Teachers' Association at Binghamton, Dr. Gerrit Smith, 573 Madison avenue, New York, president; Walter J. Hall, Carnegie hall, New York, secretary and treasurer.

July 6-9, 1897.—National Educational Association meets at Milwaukee, Wis.

July 9, 12 .- American Institute of Instruction at Montreal.

Cardinal Rules of Discipline.

Worcester, Mass.—In an address before the school teachers and others interested in education, Dr. W. T. Harris said that there were four cardinal rules relating to school discipline, regularity, punctuality, silence, and industry.

The child must attend school every single day. He must prepare himself for every recitation, overcoming, by his will-power, any dislike to perform his task. Not only must he prepare the lesson during the day; it must be done at the proper time. In this way alone can the benefits of class-work, which are so valuable as a means of seizing the subject studied through many minds, be obtained.

Silence is a negative virtue. It is that which renders possible the combination of the individual with the social whole. The pupil who whispers, or disturbs his fellows in any way, does much to destroy the profit of his companions and his teacher.

Industry may be of various kinds, but that of the school is study. In the recitation industry is exercised by giving that undivided attention, which may be called a critical alertness directed to the expression of other minds. He watches the unfolding of the lesson, so that after it is over he can prepare his future work with better method.

Foreigners in German Universities.

German universities have on their rolls the names of 2,000 students from foreign countries. A very few of these students are preparing to take degrees. The majority of them hear lectures in special branches of science for twelve or eighteen months, and then they return to their homes to practice what they have learned.

The estimates of how much these students spend a year are difficult to determine, owing to the great differences in the habits of the visitors.

The Russians of the titled class and many of the Americans live in what the Germans regard as the greatest extravagance, smoking, drinking wines daily, traveling second, and sometimes first-class on the railways, reckless of the cost, which not infrequently is fifty or seventy-five cents a day. On the other hand there are Americans who live very cheaply. The range of expenditure is between \$11.50 and \$15 a month. There is the same wide gap between the two classes of Russian students. The lower class Russians are said to live upon about \$12.50 each a month, a feat that is really possible in Germans.

The French students are economical, as are the English and Swiss, and probably keep down their expenses to about \$30 or \$40 each month. The Austrians and Hungarians are reckless spendthrifts, and Spaniards are the same. A man who has lived among them all, even the South Americans and Japanese, has calculated that about \$75 a month is a moderate average for each of the 2,000. The total amount left in Germany by the foreign students then would be some \$1,600,000 a year.

Prussian Professors' Pay.

Prussia is about to increase the total amount that she pays her officials by almost \$5,000,000 a year, part of which will benefit the university professors, who are state officials. The average salary will then be \$1,600 a year in Berlin and \$1,400 a year in other Prussian university towns. That seems rather small, considering that Berlin university has had such instructors as Virchow, Helmholz, and Bergmann. To be sure, a professor has attendants at his lecture courses, from each of whom he collects a small fee, half of which he may keep, but probably the most popular professors are unable to obtain more than \$1,000 a year from these fees.

Yet, a professor's chair in a German university is a much coveted place. Young men of great talent and reputation cling to the universities for years, supported only by the earnings that fall to tutors, in the mere hope of some time obtaining a regular professorship. A tutor lives a life of self-denial. He has but one room, takes only rolls and coffee for breakfast, only coffee for luncheon, with a slice of meat and a taste of vegetables and coffee for dinner.

As a full-fledged professor, he enjoys an eight-room flat. He never aspires to keeping a horse, or taking his family or himself to the seashore or mountains, that is, if he be depend-

ent upon his own resources. Studying, walking, and lecturing are all of the diversions of his life.

How to deal with Defective Eyes.

Penelope Powelson, in the 'San Francisco Call," gives some suggestions as to how defective vision among children may be remedied. Among other things she says:

"It is only by careful taking thought that an adult can keep eyeglasses so adjusted as to look evenly through each lens; a child cannot do it. In the excitement of play they will shift; they get bent; the undeveloped nose does not afford them sufficient support, and more often than not the wearer looks through the center of one lens and the rim of the other. The inevitable result is a difference in the focus of the eyes, unequal development and much mischief, productive of after suffering. Such inequality in the eyes may even be productive of serious brain trouble.

"A child sitting, writing, or reading at a flat desk bends forward his head in order to bring the page within range of vision. As a consequence, the eyeball, which is susceptible of slight changes in shape, becomes more convex under the influence of gravitation. In the course of a few months of this bending over of the head the convexity becomes permanent, and the result is nearsightedness. A very slight slant in the surface of desk or table does away with the necessity for this bending of the head.

"Too much—I had almost written any—microscopical work is bad for very young eyes, particularly in the instruments used are, as is generally the case, adapted for using but one eye at a time; yet, the microscopical work done in some of our schools is of an amazing sort. Biology is a study for infants nowadays.

"Blackboards and slates are capital sight-destroyers. It is possible, by the aid of colored crayons, to avoid a good deal of the evil attendant upon the use of the first-named, but the slate and pencil in common use are without a redeeming feature. One of these days, when we are wise, we shall give our little children tablets of thick, ground glass and soft black lead-pencils to use in their first attempts at writing. We are also coming see the folly of slanting letters, hair lines, and shading in penmanship, and the introduction of the vertical writing in our schools will doubtless prove a great saving to youthful sight, but we shall never attain to the best results until we have consigned the school slate to limbo. Little children are given entirely too much writing at school. It seems a pity that so much should be required to satisfy the demands of modern education.

"The work of sight-destroying, which we begin in the infant class-room, is faithfully continued through adult life. No one can compare a page of any ordinary modern book with a page of an old black-letter volume without perseiving how little wisdom the centuries have brought us in this regard. Those first-printed books were the best in point of utility, as well as of beauty, the letters were beautiful in form, and the eye took them in at a glance.

"Even our school-books offend seriously in this regard. I have before me several books designed for young children, yet printed in types calculated to try and strain strong, well-developed eyes. Now, it should be borne in mind that children's eyes are no more mature and strong than are their bones and muscles. Books printed for them should be adapted to the requirements of their eyes, as well as to the immaturity of their minds. They should be printed in plain, black letters, with no attempt at hair lines or decoration, and should be on unglazed paper.

"The introduction of the ubiquitous half-tone illustrations into our school-books has been a bad thing in many ways. They require smooth, shiny paper, just the thing on which books designed for growing eyes should not be printed."

Yale Inherits \$25,000.

New Haven, Conn.—The sum of \$25,000 has been left to Yale for the Sheffield scientific school, in accordance with the will of Mrs. Sarah Van Nostrand.

Pampered Children.

A woman teaching in a private school presents to the "Outlook" various notes which give evidence of the difficulties encountered by teachers in obtaining good work from their pu-

pils. The notes read as follows: "Please excuse Theodore from spelling until further notice." "Please excuse Theodore and Tommy from doing the rest of their examples."

"Please excuse Theodore for not having written his composition." "Please do not reprimand my children for being late, as I encourage them to sleep as much as possible."

"Please do not require Theodore to copy his exercises ,as I wish him to play out of doors as much as possible."

The public school teacher can ignore such notes, but in those schools which rely upon private patronage for success the wishes and demands of short-sighted parents must be gratified, even though it be detrimental to the pupils' advancement.

Measurements of High School Pupils.

Kansas City, Mo.-Two years ago, Dr. John Vinton obtained permission of the board to investigate the physical condition of the pupils of the Central high school. The results were compared with the tables made by Dr. Sargent, of Harvard, from a similar examination of the pupils of Boston. The results showed that the weight of the Kansas City high school boy of sixteen is less by six pounds than that of the Boston boy of the same age. The Kansas City boy is shorter by 3-10 of an inch, his neck is smalller, his lung capacity one-half inch smaller. His nervous force is found to be equal to that of the Eastern boy, so that his expenditure of nerve force as compared with his physical strength is greater than that of the Boston boy.

Children's Eyes Examined.

Minneapolis, Minn.—Nearly one-fourth of the school children of the city may be found, as a final result of the examination of the eyes, to have defective vision. About 6,000 children have been examined thus far, of whom more than a thousand have imperfect eyesight, in many cases with difficulties that spectacles will not remedy.

The principals of the schools report that there has been little opposition to the examinations on the part of parents, and much good has already resulted. It was feared that the expense would prevent many from obtaining the proper medical advice, but the ordinary expense of consultation is not large,

advice, but the ordinary expense of consultation is not large, and there are dispensaries in different parts of the city, where advice can be obtained free.

Reforms Needed in Philadelphia

Philadelphia, Penn.—William B. Wilson, ex-member of the school board, says that the present board should be abolished—the board of education—because it is autocratic, and the sectional boards because they are useless. In their place should be established a department of education of the city government of education of the city government. ment, presided over by a director.

Dr. J. H. Phillips Honored.

The alumni, of the State university of Alabama, have decided that Dr. J. H. Phillips, the popular superintendent of the schools of Birmingham, is the best man to fill the important post of president of that institution. The Birmingham "News" contains several columns relating to this matter. As a school superintendent, he has won for himself a great reputation, having shown himself a student of education, and administering his duties in the light of educational principles.

Going to "Exam." in Colorado.

Going to "Exam." in Colorado.

Denver, Col.—Mrs. Thalia G. Rhodes, county superintendent of schools, received a letter recently from a teacher near Thurman, in the eastern part of Arapahoe county. The teacher is a widow, and she asks that she may be allowed to take her examination at Thurman. Whenever her certificate has expired she has been obliged to ride forty miles over the prairie to Akron. Once she had her face frozen, at another time her feet. But last winter she encountered her worst experience. She rode to Akron, remaining there two days. It became dark before she had made half of her return trip, when the horse, who, up to this date, had cantered familiarly on his way home, came to a sudden halt. A barbed-wire fence had been put up during her absence and fenced across her path. She gave the horse free rein and trusted herself completely to his care. He made what she thought was a circle, but she afterward observed, from the tracks in the snow, that he walked around three sides of the fence and came out on the pathway at its exit from under the fence. She reached home about 10 o'clock.

She has been granted the privilege of taking her examina-

She has been granted the privilege of taking her examination at her home hereafter.

Women Want Degrees.

Three English universities, Cambridge, Oxford, and Dublin, have hitherto refused to give degrees to women. There are colleges for women at both Oxford and Cambridge, but at the completion of the course, a certificate is given, instead of the degree. Last year there was a contest at each university, on behalf of the women's rights in the matter, but the movement was unsuccessful. The controversy has just been re-opened in Cambridge by the report of the Degrees for Women Syndicate, Cambridge by the report of the Degrees for Women Syndicate, as it is called, in which nine out of thirteen members recommend concessions enabling women to obtain degrees. The campaign this fall will be prolonged and bitter, but in all probability the recommendations of the syndicate will be adopted, and women will be allowed, upon examination, to take the degree.

A Talk on Method.

Chicopee, Mass.—Supt. G. A. Stuart, of New Britain, recently gave an address before the teachers on "The Recitation." The aims, according to Mr. Stuart, are, first, to secure study; second, to influence the method of study; third, to fix knowledge. The two essentials to a good recitation are, first, that every member of the class shall recite mentally or orally the entire lesson; second, that there be a systematic plan for every recitation. tation.

There are three ways of conducting a recitation. The question-and-answer method enables the teacher to find out what the pupil knows, but it does not lead to clear and connected expression. The concert training is good for the vocal training and elocutionary drill which it gives, but the topical method is generally considered best of all, as it compels the child to prepar the lesson in a systematic way.

Morality of School Children.

Pittsburg, Pa.—The opinions of some of the leading educators of the city on morality among school children were published in a recent issue of the "Dispatch." Prof. Chapman said he did not see why public school graduates should be singled to illustrate the decadence of morality among the youth and business men of the country. Those receiving their education from the street exhibited a much lower moral tone than than the school youth.

Mr. Logan thought that the way to have good pupils and

Mr. Logan thought that the way to have good pupils, and make upright, honorable men, was to treat them as if they had some honor.

Principal Wood, of the high school, stated that the short-comings of American youth certainly were not traceable to the public schools. As much attention was paid to moral culture in the high school and lower institutions of learning as to scholastic training.

Drawing in Detroit Schools.

Drawing in Detroit Schools.

Detroit, Mich.—Great advance has been made in the drawing system in the public schools, since Miss Myra L. Jones took charge of this work as special teacher. Every four or five weeks she visits each school-room in the city, giving suggestions, and helping the teacher by statements of the methods and aims of future lessons.

Practice in simple, conventional forms is still insisted on to some extent, but with the purpose of using in the drawing subjects that the child is familiar with in every-day life. Models are brought into use from the very first, the work being principally on the fundamental forms, the circle, cube, and cylinder. The model is not used as an end in itself, for the idea of obtained from it is put into practical use. For example, if a child draws a cone, he is taught to pick out the parts of a church, a tree, or a mountain range, where this shape can be found. In geography, the products and animals of the countries studied are drawn. History is illustrated by drawing costumes and scenes, and by making pictures showing events in the lives of the great men. Holidays and anniversaries are made the subjects of appropriate drawings, and special efforts are made to have the work consistent with the season of the year.

Equal Salaries for Men and Women.

Philadelphia, Pa.—At the meeting of the school board, held March 9, it was announced that the bill to equalize the salaries of men and women teachers giving equal services, had passed the house at Harrisburg. It was moved that the matter be referred to the committee on legislation.

The recommendation that the Asa Packer school be placed to the committee of the committee on the placed to the committee on the placed to the committee of the present of th

under supervision, and that the Asa Facker school be placed under supervision, and that the salary of the present principal be paid so long as he teaches a twelfth-grade class, was adopted. The report of the committee on night schools stated that when the schools closed there were 14,059 pupils on the rolls.

Splendid Opportunities of California, Pa., Normal Students.

California, Pa.—The spring term of the State normal school opened March 29, with the largest attendance of students in the history of the school. Prof. W. S. Jackman, of Chicago normal school, gave special instruction in nature study during the opening week of the term, and Dr. Chas. A. McMurry, for the second and third weeks, in general and special methods. The work of these two men has been very inspiring and helpful to the students of the school. The California normal school is fortunate in having a large training department of about 300 children. In this department the most approved methods are put to the test of actual practice. For years it has been the custom at this school to supplement the strong pedagogical work of the regular instructors with special instruction by educational leaders. ucational leaders

Playgrounds for Children.

Baltimore, Md.-Mayor Hooper has under consideration a plan contemplating the purchase by the city of lots of lan, some 300 feet square, for use as sites for school buildings. Until these become necessary, the lots could be used as playgrounds, where the children could have tennis courts and ball games, and when the sites were needed for buildings, there would still be some ground left vacant for play.

Fifty-five Years in Harness.

Boston, Mass.—After fifty-five years of service as curator of the Lowell institute, Dr. Benjamin Eddy Cotting has resigned this position. He was present at the opening of the institute, in 1839, and his recollections cover the entire period since its establishment.

Civies in the Schools.

Cleveland, Ohio.—Supt. L. H. Jones has been giving a series of papers on the course of study in the public schools. The seventh in the series was on the "Method of Teaching American History." In the fourth grade the pupils are taught the names of the various officers of the city government, and are given illustrations of the practical work of the city council. The work is continued through the seventh and eighth grades, when the history is taken up quite in detail.

Enrichment of the School Course.

Cleveland, Ohio.—In the public schools of the city much stress is laid on the enrichment of the course of study. This includes, in the first grade, the study of plants, animals, earth, and sky; all about winds, thaws, clouds, dark and sunny days, sunsets, and the movements of the clouds; spring, rain, and snow; naming the parts of the plant, including root, stem, leaves, bud, and flowers.

The course in the second grade covers the collection of autumn leaves; study of roots and leaves used for food; the caterpillar and its cocoon; earthworms, and their habits; animal life on sea and land; the manner of life of the Eskimos; the cow, with the uses of butter, milk, and cheese; formation of clouds, vapor, fogs, and mists; development of the life-bud into roots, their use and relation to the rest of the plant; lessons on spring flowers, on the corolla, calyx, stamen, pistil, and pollen.

The Study of History.

The Study of History.

Philadelphia, Pa.—The History Club, a society organized among the higher schools, had, at the second meeting, an address from Dr. Alfred Gudeman, of the University of Pennsylvania, on "The Study of Greek and Roman History."

Dr. Gudeman said that there was no branch of human knowledge in which enhusiasm can be so easily aroused as in the study of history; especially that of Greece and Rome. One reason for this is because no other nations that have played a conspicuous part in human achievement have been confined within so narrow a geographical limit. In the second place, the story of Athens and Rome is so far from the pupils' vision, that the heroic figures stand out in clear-cut outlines, full of vitality and vigor. Then the conditions in Greece and Rome were so different from those in our life that this adds to the interest on the part of pupils.

terest on the part of pupils.

Turning to another side of history study, Dr. Gudeman said that it was remarked by Renan, that modern civilization has been fed by three streams, the religious, the intellectual, and the political, represented by Palestine, Greece, and Rome.

The Hebrews laid the foundation of the Christian religion and attice of to day. Greek genius gave direction to all moderns of the Christian religion.

The Hebrews laid the foundation of the Christian religion and ethics of to-day. Greek genius gave direction to all modern effort in the domains of art, science, poetry, and philosophy, and largely determined its external form. To the Romans we are indebted for the political organization of modern society and its system of jurisprudence. Each of these nations thus had a mission to fulfill in the intellectual development of mankind, and each left the stage of history when the work had been accomplished, bequeathing it as a priceless legacy to modern times.

Physiography to take the Place of Descriptive Geography.

Professor William M. Davis recently gave a talk to the members of the Hartford County Teachers' Association on "The Replacement of Descriptive by Physical Geography." He held that descriptive geography should be replaced by physiography. The outline surfaces of the district in which the school is placed can be studied, with the surrounding hills, streams, plains, and coasts. Rivers can be studied as bearing constant wastes to the sea. Models, diagrams, and descriptions of surfaces can be used. If the teachers are not trained for this work they should improve every opportunity for further study.

An Effective Story.

The story is told of Johns Hopkins, that he and Peabody were once invited to dinner together. Peabody was asked which he enjoyed most, making money or giving it away. He replied that there had been a struggle, which lasted until he went into his remodeled London houses and saw the little chil-

dren so happy.
"Then," said Peabody, "I began to find out that it was

pleasanter to give money away than it was to make it."
Forty-eight hours later Johns Hopkins was making out his

A Supervising Principal Sues the City.

Philadelphia, Penn.—A case that is of interest to all the local school boards and teachers is to be tried in the May term of court. Miss Susan Scott was elected supervising principal of the 12th and Locust streets school. The board of education refused to recognize her in that capacity, because she was not a graduate of the school of pedagogy, which is a male institution. By the advice of counsel, she has sued the city for her salary.

For Better Supervision.

Augusta, Maine.—A bill has been passed by the legislature that will do much, it is hoped, for the rural schools of the state. Its object is to allow two or more towns to unite in employing a superintendent who will devote his time to the work. The towns must pay the superintendent not less than \$500, and the state will pay half as much more, provided that not more than \$750 be paid by the state to any one person. Those employed as superintendents must hold certificates, in accordance with the law providing for the state examination of teachers.

Yale Heavily Taxed.

New Haven, Conn.—The new tax list imposes upon Yale university an assessment of \$382,000, although this may not be sustained by the courts.

Brief Notes of General Interest.

Prof. Bailey, of the University of California, in a recent address said that it was not so much the studies which children pursued as the individuality of the teacher, which makes the lasting impression. The teacher should try to educate by bringing out right instead and developing the natural aptitudes of those under his charge. tudes of those under his charge.

J. W. Gibbs, professor of mathematical physics, at Yale, has been elected a member of the Royal academy at London.

Alfred E. Buck, of Georgia, appointed minister to Japan by the president, was at one time principal of the high school at Lewiston, Maine.

In the kindergarten that was conducted by Miss Willard in the White House last winter, no English was spoken. All of the talk, during both play and work, was in either French or German.

The first free school was founded at Shields, England, in 1790. It was started at the request of a few enlightened citizens, who considered this a better way to celebrate King George's jubilee than by spending the money collected for that purpose, in fireworks.

Hartford, Conn.—A bill was passed by the general assembly, a few days ago, in accordance with which the teachers of the lower grades, at the option of the boards of school visitors, may be obliged to teach, in addition to the regular studies of those grades, elementary science and manual training.

Chicago, Ill.—The best things in the public schools were discussed by those who addressed the members of the Institute of Education at its last meeting. Some held that the teachers were of most importance to the schools. The system of the devlopment of the body by physical culture was admitted as a very important factor in education. Mrs. Charles Henrotin said that one of the best things that could happen to school was the have the teacher learn to enjoy herself

a school was to have the teacher learn to enjoy herself.

Dr. Alice B. Stockham considered manual training the best thing. She said that when the time came, that the child wanted to make bread, instead of being allowed to do so, and being taught to do it right, the natural instincts are usually crushed by the purshase of worthless toys.

An Important Change.

Our Western office and that of Mr. A. Flanagan, at present at 262 Wabash avenue. Chicago, will be removed on May I to the opposite side of the street, Nos. 267 and 269 Wabash avenue. The new quarters afford considerably more room for the steadily growing business. Besides a large stock of our own publications, and of Mr. Flanagan's own large and attractive line of supplementary reading books and teachers aids, all books for teachers of all publishers are kept in stock, also blackboard stencils, reward cards, and school library books; everything, at the most reasonable prices. We hope the new offices will be more than ever before a rendezvous for the teachers of Chicago and vicinity. In a single Saturday 700 teachers by actual count, visited the present offices. The special editions of The Teachers' Institute for Illinois and Iowa, to be issued by Mr. Flanagan, should largely increase the number of friends in the West.

E. L. Kellogg & Co. E. L. Kellogg & Co.

Reports of Lessons.

Lessons in Percentage. III.

(Condensed stenographic report of lessons given by Prin. A. B. Guilford, of Jersey City.)

What was the measure we worked with in the last lesson?

The 100 measure.

Why is it easy to use this measure? "Because the results of measuring may be so readily found."
What name did we give to the number measured by 100?
"The Base of Percentage."
Name it as a dividend, divisor, or quotient. "It is a dividend."
What is its divisor? "The measure 100." What is multiplied by its quotient? "The rate." What product arises? "The

by its quotient?

percentage."

What does an increase in the rate produce? "An increase in the percentage."

What does a rate of 100 per hundred produce?
"A percentage equal to the base."

III. We are now ready to study short ways of computing percentage with certain common rates. There are 100 o's in the group below. We will consider this number as a base.

0	0	0	0	O	0	O	0	0	0
0	0	0	0	0	0	0	O	0	0
0	0	0	O	o	0	0	0	0	0
0	0	0	0	O	0	0	0	0	0
0	0	0	0	O	0	0	0	0	0
0	o	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	O	0	o	0	0	0
o	o	0	O	o	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

I desire to take 25 per cent. of this number. What does this mean? "The taking of twenty-five for each hundred in the number."

How many hundreds in the base? "One hundred."
How many 25s shall I take? "One twenty-five." Which
twenty-five? "You may take any twenty-five."
Notice how I make the selection. I will check each one as I
take it. You may count as I check. I will stop when I have
checked—? "Twenty-five." (The teacher checks according to checked—? "Twenty-five." (The teacher checks according to plan shown in Fig. 2 and the children count until 25 is reached.)

Let me draw some vertical and horizontal lines, that you may see my plan of selection better. These lines group the base into what? "Into fours."

To get 25 per cast of reacher.

To get 25 per cent. of 100 how many did I take from each 4 in 00? "One from each four."

0	0	0	0	0	0	0	0	0	0
0	0	0	•	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	•	0	•	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0		0	0	0	•	0	•	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	•	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0		0		0	0	0	0	0	0

Find 25 per cent of 200 by multiplying the rate by the number of hundreds in 200; find how many you will have if you take one for each four in 200, and compare the two numbers. "They are the same—each is fifty."

What is true of these numbers is true of all numbers--25 for each hundred is the same as I for each 4. It is sometimes very

convenient to use this knowledge.

I of a 4 is what part of 4? "‡ of 4."

I of each 4 in 18 is what part of 16? "‡ of 16."

I of each 4 in any number is what part of that number? "‡ of that number." that number.

Then to find 25 per cent. of a number we may——? "To find 25 per cent, of a number we may take 1 of that number."

I have arranged on the north side of the room several groups

of books—ten groups in all. Who can at sight name 25 per cent. of each group? (The ten groups contained 4, 8, 12, 16, 6, 10, 5, 3, 2, and 1 books, respectively.) Each answer was readily and instantly given by inspection.

To-morrow you may show me by illustration using 100 as the base, out of what grouping I must take 1 to obtain 50 per cent. of 100; 10 per cent. of 100; and 20 per cent. of 100.

Recreation Hour.

The Spring Has Come.

(Let some of the flowers named in the poem appear in a bouquet held by the speaker.

> The sunbeams, lost for half a year, Slant through my pane their morning rays; For dry northwesters, cold and clear, The east blows in its thin, blue haze.

And first the snowdrops' bells are seen, Then close against the sheltering wall The tulip's horn, of dusky green, The peony's dark, unfolding ball.

The golden-chaliced crocus burns; The long narcissus-blades appear; The cone-beaked hyacinth returns To light her blue-flamed chandelier.

The willow's whistling lashes, wrung By the wild winds of gusty March, With sallow leaflets, lightly strung, Are swaying by the tufted larch.

The elms have robed their slender spray With full-blown flower and embryo leaf; Wide o'er the clasping arch of day Soars like a cloud their hoary chief.

-O. W. Holmes.

Daffodils.

I wandered, lonely as a cloud That floats on high o'er vales and hills, When all at once I saw a crowd, A host of golden daffodils, Beside the lake, beneath the trees, Fluttering, dancing in the breeze.

Continuous as the stars that shine And twinkle on the Milky Way, They stretched in never-ending line Along the margin of a bay; Ten thousand saw I at a glance, Tossing their heads in sprightly dance.

The waves beside them danced, but they Outdid the sparkling waves in glee; A poet could not but be gay In such a jocund company. I gazed and gazed, but little thought, What wealth the show to me had brought.

For oft, when on my couch I lie, In vacant, or in pensive mood, They flash upon that inward eye, Which is the bliss of solitude; And then my heart with pleasure fills, And dances with the daffodils.

-William Wordsworth.

May-Day.

The daisies peep from every field, And violets sweet their odors yield; The purple blosssom paints the thorn, And streams reflect the blush of morn. Then lads and lassies, all, be gay, For this is nature's holiday.

Let lusty labor drop his fiail,
Nor woodman's hook a tree assail;
The ox shall cease his neck to bow,
And Clodden yield to rest the plough.
Behold the lark in ether float,
While rapture swells the liquid note.
What warbles he, with merry cheer?
"Let love and pleasure rule the year!"

Lo! Sol looks down with radiant eye, And throws a smile around the sky; Embracing hill, and vale, and stream, And warning nature with his beam. Then lass and lassies, all, be gay, For this is nature's holiday.

-John Wolcott.

The New Umbrella.

Oh, Ella!
With her first umbrella!
She walked abroad like any queen;
She held it proudly for display,
Admired its handle, stroked its sheen,
And never little girl more gay.

Dear Ella!
Such a wee umbrella!
One day upon the market-place
I met her; dripping were her curls.
She looked, despite her sunny face,
The most forlorn of little girls.

"Why, Ella!
Where's your new umbrella?"
Said I: "The storm has drenched your hair!
Just see your frock! just see your hat!
And what is this you hug with care?—
A broom, a fiddle, or a cat?"

Oh, Ella!
With her first umbrella!
She looked at me and shyly spoke,
The rain-drops pelting on her yet:
"I have it here beneath my cloak,
Because, you see, it might get wet."
—Agnes Lee in the April "St. Nicholas."

The Nobody Man.

I walked one day, a long, long way,
Down to Topsy-Turvy Town,
Where it's day all night, and it's night all day—
In the Land of Upside Down.
And who do you think was walking round?
Imagine it if you can;
In the land of Upside Down I found
The Nobody Man.

His head was bowed, and he groaned aloud,
With the burden that he bore;
Misdeeds and mishaps, a wonderful crowd,
Till there seemed no room for more.
"And why are you so heavily tasked,
On such an unequal plan?"

On such an unequal plan?"
As I sat on a wayside seat, I asked
The Nobody Man.

He sat him nigh with a doleful sigh,
And he said: "It needs must be;
What 'Nobody' does at home so sly
Is shouldered here by me.
The slips and mishaps that are, soon or late,
Denied by the careless clan,
In the land of Upside Down all weight
The Nobody Man.

He passed along with a doleful song,
This overburdened wight,
And bowed with the weight of other folks' wrong,

He hobbled out of sight;
And I don't understand how it all can be,
Or why he should bear this ban;
But—well, 'twas a wonderful thing to see
The Nobody Man.
—Winthrop Packard in "St. Nicholas."

Tempered.

By Susan Coolidge.

When stern occasion calls for war,
And the trumpets shrill and peal,
Forges and armories ring all day
With the fierce clash of steel.
The blades are heated in the flame,
And cooled in icy flood,
And beaten hard and beaten well,
To make them firm and pliable,
Their edge and temper good;
Then tough and sharp with discipline,
They win the fight for fighting men.

When God's occasions call for men,
His chosen souls He takes
In life's hot fire He tempers them,
With tears He cools and slakes;
With many a heavy, grievous stroke
He beats them to an edge,
And tests and tries, again, again,
Till the hard will is fused, and pain
Becomes high privilege;
Then strong and quickened through
and through,
They ready are His work to do.

Like an on-rushing, furious host
The tide of need and sin.
Unless the blades shall tempered be,
They have no chance to win;
God trusts to no untested sword
When He goes forth to war;
Only the souls that, beaten long
On pain's great anvil, have grown strong,
His chosen weapons are,
Ah souls, on pain's great anvil laid,
Remember this, nor be afraid!

—From "The Congregationalist."

The Whale and the Creed.

Religious fights I always did bewail,

'T is something I never take a start in;
I hate to see good people rant and rail

Of things on which no one should feel too "sartin;"
So this dispute 'twixt Jonah and the whale

It's hard to see how one can take much heart in,
And get his feelings all torn up and nettled
About a thing that never can be settled.

I have a friend as old as he can be:
His legs are wabbly, and his head is hoary,
Who in a thousand ways has shown to me
A faith implicit in the Jonah story;
His old wife with him scarcely can agree;
She says it is an ancient allegory.
And he, in peace, permits his wife to doubt it,
Though years ago they quarrelled some about it.

The Bible is a book that I adore
For precepts found within its sacred pages;
Oft when I'm sad I turn its pages o'er,
And read the record of departed sages;
But matters in dispute, alas, no more
My way-worn and distracted mind engages.
Like Jonah and the whale, and Noah's landing,
And things that tax my feeble understanding.

I read instead what I can understand,
The story of a Father's love, undying,
The promise of another, better land,
Beyond this vale of pain, and want, and sighing;
A mansion in a city, great, and grand,
The glory of man's highest art outvying;
Where wickedness can come to torture never,
And weary souls can rest in peace forever.

And, while I don't bank much on any creed,
And doctrines taught by schools ecclesiastic,
I gather comfort from the things I read.
It makes my heart more mellow-like and plastic;
I cannot follow where some teachers lead,
Nor take their theologic potions drastic;
And this is all my creed, awake or sleeping,
The Lord is good, and I am in His keeping.

—From the "Nebraska State Journal."

Cetters.

Different Points of View.

When I began to teach I simply intended to have the pupils learn to read, write, and cipher, as well as I did. I followed this course for two years; then I became acquainted with a graduate from a normal school, and having visited his school, saw that while he was teaching the same subjects I did, he was producing effects that I was not. This led me to investigate my motives, to look at education as a moral force, instead of an intellectual acquirement. I shifted my ground somewhat, but was not wholly satisfied; I betook myself to the same normal school that had sent out the man who had shown me I was working too narrowly. I left the normal school with definite ideas as to methods to be pursued, and the reasons of those methods. I had changed my point of view almost wholly; I felt that I was now aiming at quite other things from what I formerly had. I began to read and study on education; I was certain that no one could teach well who did not know what had been done in the past by other teachers. About this time I became an assistant to a hard-headed Scotchman, and in him I obtained no sympathy with my new views. He declared all this reading about education was pure waste of time. "They have got to get their lessons and recite them; that is all there is to it!" were words he repeated over and over a hundred times. I began to question whether I was not on a wild-goose chase after all. I laid aside my pedagogical books and pursued the boys with a rod of iron-speaking metaphorically, of course. Now I was applauded as being a sensible fellow. Meetings of teachers were termed humbugs by my principal, except as advertising schemes. "What good can they do? They cannot make it easier for the boys to learn to read Cicero. These long-winded papers are well enough for those who have the time to hear them; but can those fellows teach better than the rest?"

Our school was popular, and the boys took a good standing in college—that I could see. Yet, I was not wholly satisfied. A good many came to us a while, and then dropped off. Was the school a success for the entire number? I doubted this. I thought there was a hardening process in operation. I noted a feeling that success in a class, be it spelling, or arithmetic, or anything else, was to be had at any price. And, O, how they joyed over the failures and discomfitures of their fellows! To beat was the great thing; to know how to spell they cared little for; to spell the rest down, that was worth working for. If I suggested any thoughts like these, the principal would laugh and say: "Boys will be boys." But I feared this demoralization was the result of our methods.

My next position was the principalship of a school in a town of 5,000 inhabitants, and after starting off with my late experience as my guide for the present, I felt impelled to review the past with candor. I was not satisfied. Conversing with an assistant who was a graduate from Oswego's famed normal school, I found I had one assistant that thought as I did. We all met in council each Saturday morning and took up the study of education. Payne's lectures had just then been published by *The School Journal*, and strongly recommend-

ed; this was made the text-book. Of the eleven teachers, only three were at all interested, to start with.

In a short time I found myself on my old ground, trying to get a philosophy of education under my feet; I was certainly happier. Gradually, most of the assistants began to have an interest. I have pursued a similar course ever since, and feel that not only is there satisfaction in pursuing a philosophical course, but the results are richer and more encouraging. This, of course, will be the test with the public. I am certain that the interest of the pupils is greater, that they take up their tasks with more pleasure than when I simply made knowledge the only end of their coming to school.

The New Education, of course, marked me for an easy victim. I had seen the Old Education at close range; I knew its defects. I had begun on "my own hook" to move off in new directions. I make my object, to build up a natural, wholesome, free, earnest, intellectual, and ethical boyhood and girlhood. I encourage going to college, and think I am as successful in that as my old Scotch principal; but I feel that those who go there from my school now go with different motives than they did in those old days. Thus you see I have gone clear round, and am where my best convictions led me many years ago; and there I intend to stay.

J. G. Cattin.

Philadelphia.

Teachers and the Preservation of Birds.

The teachers are asked to use their influence in protecting the birds. Many species have already entirely disappeared; others are steadily on the decrease. Meanwhile, insects multiply, and in many localities last season the crops escaped total destruction only by the most strenuous exertion on the part of the farmers. We are confronted with a serious problem. For years appeals have been made for the birds on humane considerations; it is now become to every individual a question of self-interest.

The destruction of the birds means something more than the mere absence of beauty and song. It means an army of insects, wholly beyond control, and such a shortage of crops as to make possible even the dire calamity of a famine.

Next to theenormous slaughter of birds for purposes of feminine adornment is the waste occasioned by the amateur naturalist. Nearly every school boy has a mania for collecting. His egg collection counts up into the hundreds, and the stuffed birds that adorn his room are pointed to with pride as proof both of his skill as a marksman and his "scientific spirit."

The state of Pennsylvania for two years has observed a "Bird day." One advantage of such an observance is to fix the subject in the thought of the children. If the teachers in our public schools would take hold of the matter with enthusiasm, one source of the waste of bird-life could be effectually restricted. The experience of the writer with boys is that they will usually listen to reason. Where sentiment will not move them the dispassionate presentation of fact will have weight.

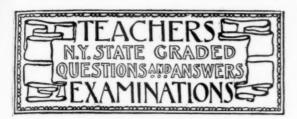
The judicious teacher will know how to best secure the cooperation of his scholars. I would suggest that occasionally the lessons be suspended, and a half hour spent in the interests of the birds. Literature bearing on the subject is abundant, and within the reach of every teacher. Longfellow's beautiful poem, "The Birds of Killingworth," is right to the point. Statistics may be used with startling effect.

Let something be done by the teacher to restrain the thoughtless egg-and-bird collector. If the tragedies of the nest will not move us to pity, only the story of the co-operation of the birds in the preservation of the crops must stay the despoiling hand.

Happy the teacher who can, so plead the cause of the birds before his school that the girls will remove the "little brown wings" from their hats in very shame, and the boys will manfully resolve to "handle not" whenever they look upon the eggs in the nest!

Edward Foster Temple.

Trenton, New York.



First Grade Questions and Answers.

(Examinations held March 4, 1897.)

ARITHMETIC.

I. Define (a) improper fraction; (b) common multiple; (c) denominate number; (d) root.

2. Write the abbreviation or convention used as the symbol far (a) hours; (b) square yards; (c) hogsheads; (d) minutes of longitude; (e) acres. Write in Roman notation 2,999.

3. In the problem 18,543,275÷48,372.5 determine by inspection the local value of the first figure of the quotient, and explain the process.

4. A watch case of gold 14 carats fine weights 32 pennyweights. Find the value of the gold in the case if fine gold is worth \$20.25 per ounce Troy.

5. If a man sells 3/4 of his real estate to one person, 3/5 of it to another, 3-7 of remainder to another, and then has 28 acres left, how many acres had he at first?

6. Lake Erie & Western preferred stock on January 13, 1897, opened at 66 and closed at 671/4. What was the per cent. of advance for the day?

7. Two notes for equal sums, at interest 8 mo. 12 da. at 51/4% and 6% per annum respectively, together amount to \$5,201.25. Find the principal made payable by each note.

8. If the proceeds of a note discounted at bank for 60 days at 51/2% per annum are \$139.70, what are the proceeds of a note for double the amount of the first, discounted for 90 days at 4%? (Solve by proportion.)

9. How much matched lumber must be purchased to ceil a porch 8 feet wide and extending around two sides of a building 22 ft. by 25 ft., if one-sixth of the lumber purchased is allowed for matching and waste?

10. Two men, one on the equator and the other due northwest of the first, are 17 miles apart. If the first travels west and the other south till they meet, how far must each travel?

ANSWERS.

One whose numerator is greater than its denominator.
 (b) An exact dividend of several numbers.
 (c) One of several related denominations written together.
 (d) One of two or more equal factors of a number.

2. (a) hrs. (b) sq. yds. (c) hhd. (d) '. (e) A. MMDCCCCXCIX.

3. The first figure of the quotient is 3. This is determined by noting that 48 is contained in 185 three times.

- 4. \$18.90.
- 5. 140.
- 6. 1 9-10 % nearly.
- 7. \$2,500.
- 8. \$232.83.
- 9. 528 ft.
- 10. 12 miles and a small fraction over.

AMERICAN HISTORY.

1. By what discoveries and voyages was it made evident to the people of Europe that Columbus had not found the Indias, but had discovered a new continent?

2. Mention and explain some one of the acts of the English government previous to the Revolution, other than tax levies, which were distasteful to the people of the colonies.

3. (a) What two colonies claimed Vermont? (b) How were the conflicting claims finally settled?

4. (a) What was the object of Washington in attacking the English army at Germantown? (b) What was the result of the engagement?

5. (a) What is meant by the right of search that was maintained by England in 1812? (b) How did the principle then

fought for by this country enter into the Mason and Slidell affair in 1861?

6. Name the political party which advocated each of the following projects at the presidential elections specified: The annexation of Texas, in 1844; the restriction of slavery, in 1856; the liberal construction of the constitution and a strong central government, in 1796.

7. The free-soil party probably decided the election of 1848 by drawing enough votes from the Democratic party to give the election to Taylor. (a) What was the leading principle of the free-soil party? (b) What important addition had just been made in 1848 to the territory of the United States?

8. Compare the North and the South at the opening of the civil war with reference to the following requisites for successfully carrying on war; (a) men experienced in the use of arms; (b) navy and merchant marine; (c) number of citizens capable of bearing arms.

Explain the importance of the capture of Fort Donelson as to (a) the territory opened up to the victorious army;
 (b) the prominence given to the successful commander.

10. What was the purpose and effect of any one of the following congressional acts of recent years: The Bland silver bill, the civil service act, the Chinese exclusion act?

ANSWERS.

1. Those of Magellan.

2. Navigation acts, which restricted the commerce of the colonies to trade with England.

3. (a) New Hampshire and New York.

(b) New York gave up her claim.

4. (a) To prevent the English from getting control of the Delaware, and to encourage his army. (b) Washington was

5. (a) The right to board ships of the United States to search for English seamen. (b) As the United States had denied the right of the English to take men from its ships in 1812, it could not consistently commit the same act on an English ship in 1863.

6. The Slavery party; the Republican party; the Federaliets

 (a) That slavery should not be extended into the territories.
 (b) California and New Mexico.

8. (a) The South had the advantage; (b) the North had the advantage; (c) the North had the advantage.

9. (a) It gave Tennessee and Kentucky into the hands of the Union forces, and opened the Mississippi to navigation. (b) It turned the eyes of the nation to Gen. Grant and led to his rapid promotion.

10. The purpose of the civil service act was to destroy the "spoils system" of rotation in office and put the civil service on a business basis. The result has been highly satisfactory.

GFOGRAPHY.

1. Having given the width of the temperate zone, how may the width of the other zones be computed?

Egypt is almost rainless; yet the valley of the Nile is one of the most productive districts of the earth. Explain.

3. Through what three great river systems do the waters of Minnesota find their way to the ocean?

4. How do the Coast Range mountains affect the climate of eastern California?

5. Locate the following and state for what each is noted; (a) Quebec; (b) Hamburg; (c) Annapolis; (d) Quito.

6. (a) To what city do great ocean steamers ascend the St. Lawrence? (b) To what point is the Hudson navigable?

7. (a) What large city of China belongs to Great Britian?
b) What two large islands of the West Indies belong to Spain?

8. In what state is (a) the Yosemite valley; (b) the Mammoth Cave; (c) Great Salt Lake; (d) the Falls of St. Anthony; (e) Watkins Glen?

Mention in order the waters over which a ship would sail on a voyage from the mouth of the Mersey to the mouth of the Rhine.

10. Mention two of the principal exports of (a) France; (b) Brazil.

ANSWERS.

1. Subtract the width of the temperate zone from 90 and divide by 2, the quotient will be the width of the frigid zone and

also of the torrid zone north of the equator. Multiply the quo. tient by 2 to find the entire width of the torrid zone.

- The land is watered by the overflow of the Nile.
- Mississippi, Red river of the North, and the St. Lawrence 3.
- They make it milder and dryer. 4.
- In the province of Quebec, on the St. Lawrence. For its lumber trade. (b) In Northern Germany on the Elbe, noted for its commerce. (c) In Maryland on the the Chesepeake bay, noted for its Naval Academy. (d) In the western part Ecuador. It is the capital.
 - 6. (a) To Montreal. (b) To Troy.
- 7. (a) Hong Kong, (b) Cuba and Puerto Rico.
- 8. (a) California. (b) Kentucky. (c) Utah. (d) Minnesota (e) New York.
- 9. Irish sea, St. George's channel, Atlantic ocean, English channel, St. of Dover, North sea.
- 10. (a) Wines and silk. (b) Coffee and sugar.

PHYSIOLOGY AND HYGIENE.

- Define (a) cornea; (b) cuticle; (c) chyle.
- Describe the arrangement of the little bones of the ear and state their function.
- 3. Show how any wearing apparel that interferes with the free action of the diaphragm prevents the proper oxygenization of the blood.
- Mention three fluids secreted by the membrane lining the alimentary canal, and state the office of each.
- When a person has a cold on the lungs, why is it especially important that the skin be kept in a healthful and active condition?
- 6. Explain why the blood has less of nutrient and vitalizing properties after it has passed the capillaries of the larger circulation?
- 7. What membrane (a) lines the eustachian tube? (b) envelops the lungs? (c) lines the joints?
- 8. Why does a hot bath often prove exhausting in its effects?
- 9. What means may be used immediately to stop the flow of blood from a dangerous wound?
- 10. What evil effects are produced by the habitual use of morphine?

ANSWERS.

- 1. (a) The transparent part of the eyeball which admits light. (b) The outer layer of the skin. (c) The fully-digested food, ready to be absorbed into the blood.
- 2. They stretch in a chain from the drum-head to the inner ear. They are four in number, the malleus, incus, orbiculus, and stapes. They convey vibrations from the tympanum to the inner ear.
- 3. It prevents the contraction and relaxation of the diaphram, and this hinders the expulsion and inspiration of a full supply of air.
- The saliva, which moistens the food and changes starch into sugar; the gastric juice, which digests the albuminoids in the stomach; the intestinal juices, which help carry on the digestion in the intestines.
- 5. So that the skin can help carry off the raste matter and relieve the lungs.
- 6. Because the nutriment has passed through the walls of the capillaries into the system and waste matter has taken its place.
 - (a) Mucous. (b) Pleura. (c) Synovial. 7.
- 8. Because it brings the blood to the surface and the reaction causes exhaustion.
- q. Pressure between the wound and the heart, if an artery is severed, and on the other side of the wound, if a vein has been cut.
 - 10. It poisons the system, causing stupor.

PHYSICS.

- 1. Define (a) a molecule; (b) inertia; (c) ductility.
- 2. (a) What is meant by capillary attraction? Give an il-'lustration found (b) in nature: (c) in some manufactured article.
- Give an example of a body in (a) stable equilibrium; 3.
- (b) indifferent equilibrium.

 4. Describe some simple experiment showing (a) the upward pressure of water; (b) the downward pressure of air.

- 5. (a) What temperature will be indicated by a Fahrenheit thermometer immersed in boiling water at sea level? If extra heat be applied and the water be boiled for some time longer (b) what temperature will then be indicated? (c) Explain.

 6. (a) To what is the loss of weight of a piece of iron when weighed in water equal? (b) Why does the iron weigh less in water than in air?
- 7. (a) Upon what does the color of a body depend? (b) What are complementary colors?
- 8. (a) What is the approximate atmospheric pressure upon a square inch of the earth's surface at the level of the sea? (b) What is the approximate height of a column of water that will balance such atmospheric pressure?
- 9. What is the effect upon tone of (a) lengthening sound waves? (b) increasing the rapidity of vibrations?

 10. (a) What is the effect of passing a current of electricity through a coil of insulated wire surrounding a bar of soft iron? (b) Give an illustration of its practical use.

ANSWERS.

- r. (a) A group of atoms. (b) A property of matter that causes it to resist change from a state of rest to one of motion or the opposite. (c) A property of matter which permits it to
- be drawn out into wire.

 2. (a) A kind of adhesion between liquids and solids, which causes liquids to rise in fine tubes. (b) The rising of water in porous soil. (c) The rising of oil in a lamp-wick.

 3. (a) An inkstand upon a desk. (b) A man walking a
- tight rope.

 4. (a) Hold a block of wood under water, release it and it rises to the top. (b) Put a piece of paper in a tumbler, light it, and invert the tumbler in a saucer partly filled with water. The burning paper will consume the oxygen in the glass, and the water will rise in the glass because of the pressure of air

- on the water in the saucer.

 5. (a) 212°. (b) The same as before. (c) Because water turns into steam and passes off at 212°.

 6. (a) To the weight of the water displaced. (b) Because of the buoyant power of water.

 7. (a) The kind of light it reflects. (b) Those which when mixed produce white.
- 8. (a) 15 pounds. (b) 32 feet. 9. (a) Lowers the tone. (b) Elevates the pitch. 10. (a) It produces an electro magnet. (b) instruments. (b) In telegraphic

SCHOOL LAW.

- 1. What is the provision of the law in relation to the visitation
- of schools by the school commissioner?
 2. (a) Before any school-house may be built what plans must be submitted to a school officer? (b) To what officer
- must be submitted to a school officer? (b) To what officer must these plans be submitted?

 3. If a trustee be elected by the votes of unqualified voters what course may be taken to right the matter?

 4. (a) By whom is a special meeting in a common school district called? (b) What three items of information must the call contain? call contain?
- State the provisions of the law in relation to the display of the United States flag on the school grounds?

 6. What are the provisions of the law in relation to the
- amount of personal property necessary to constitute a voter at a school meeting? (a) In case of a vacancy in the office of school commis
- 7. (a) In case of a vacancy in the office of school commissioner what officer appoints a person to fill the vacancy? (b) For how long a time does the appointee hold the office?

 8. What is the longest term of employment for which a sole trustee may legally contract with a teacher?

 9. Name three sources from which the state school funds
- are derived.
- To. After setting apart the teachers' quotas, on what basis does the state superintendent apportion the school money to the counties and cities of the state?

ANSWERS.

- 1. It is made his duty to visit and examine all the schools and school disricts within his district as often in each year as shall be practicable.

 2. (a) The plan of ventilating, heating, and lighting. (b) To the school commissioner.

 3. An appeal can be made to the superintendent of public instruction.
- instruction.
 4. (a) By the trustee or trustees. (b) The time, place, and
- 4. (a) By the trustee of trustees of trustees of the object of the meeting.
 5. The flag must be displayed on school days during school 5. The flag must be displayed on school authorities may
- 6. Any citizen owning personal property assessed on the last preceding assessment roll of the town to an amount exceeding \$50, exclusive of such as is exempt from execution, is entitled to vote.

 7. (a) The county judge. (b) Until the rst of January succeeding the next general election.

 8. One year.
- One year. The United States Deposit Fund, the Common School Fund, and the state school tax.
 10. According to population.

Literary Notes.

Ginn & Co. have ready Burke's "Speech on Conciliation," which is now studied as one of the English requirements for admission to college, and is also one of the best specimens,—perhaps the very best,—of Burke's oratory. This edition contains an introduction dealing briefly with Burke's life, his relations to the politics of his time, his attitude as a statesman, his style as a writer and speaker, and the argumentative structure of the speech in hand.

An edition of Coleridge's "Rime of the Ancient Mariner" that promises to add much to the enjoyment of readers of the poem is that edited by Mr. A. J. George. Besides the commonly received text of 1817 with its gloss, the volume includes the original text of 1798 as published in the Lyrical Ballads. In this are clearly indicated the respective parts which Wordsworth and Coleridge had in the original composition of the poem. The Notes also include the variations made in a third text published prior to that of 1817. The publishers are Messrs. D. C. Heath & Co., of Boston, and the book will be ready early in April. be ready early in April.

Those who have had the privilege of looking over the advanced sheets of the oddly-named volume of stories, "The Ape, the Idiot, and Other People," by W. C. Morrow, pronounce the author to be a new force in contemporary letters. Mr. Morrow is a nat've of San Francisco. A few of his stories have appeared in Eastern magazines, notably "Lippincott's," and hence the Lippincott house is now his publisher. Since Monk Lewis and Poe, it is claimed that the literature of the uncanny has not had so powerful a master. has not had so powerful a master.

Browning is an eccentric poet and often hard to comprehend, yet he is full of thought and he exerts a great charm, especially through some of his shorter poems. With these, at least, all students of English literature should become acquainted. The volume of selections from his "Lyrical and Dramatic Poems," edited by Edward T. Mason, includes such well-known poems as "How They Brought the Good News from Ghent." "Incident in the French as "How They Brought the Good News ens," which were well-known a generation ago, is writing "The Annals of Switzer-Camp," "Herve Riel," "The Lost Leader," to be published by A. S. Barnes & The Pied Piper of Hamelin," "Evelyn Co., New York. She will make it a text-

There are a hundred imitations, They all lack the remark. able qualities of the genuine.

Hope," etc. The introduction is the ninth chapter of Stedman's "Victorian Poets," giving a critical estimate of Browning's works. (Henry Holt & Co., New York. 60 cents.)

A volume of short essays, by Rev. Dr. C. H. Parkhurst, of New York city, bears the title of "Talks to Young Women." He approaches the subject modestly, not He approaches the subject modestly, not vaunting man's superiority, but acknowledging woman's excellences and her superiority on the whole. His woman readers will therefore read with patience what he writes. It is of value as coming from a keen observer and deep thinker on social questions. Some of Dr. Parkhurst's topics are "The True Mission of Women," "College Training for Women," "Women without the Ballot," "Marriage and its Safeguards," etc. Men could also profit by a careful reading of his book. (The Century Co., New York. 16mo, 130 pages, \$1.00.)

The Harpers are soon to bring out in a new and beautiful edition of Miss Muloch's novel, "John Halifax, Gentleman," which made one of the greatest literary successes of the time of its first publication, and has since had many thousands of readers.

Miss Julia M. Colton, a neice of Rev. Walter Colton, author of "Ship and Shore," "Sea and Sailor," "Three Years in California," "Constantinople and Ath-

book for supplementary work in history, while furnishing the general reader with such a story of Switzerland as will be entertaining and reliable. The book will be illustrated with many half-tone engravings of life and scenes from the land of heroes and mountains. and mountains.

Henry Altemus, Philadelphia, has nearly ready for publication a charming child-life story, called "Trif and Trixy," by John Habberton, of "Helen's Babies" fame.

G. P. Putnam's Sons have completed an arrangement with the city of New York for printing in their Knickerbocker Press a limited edition of the "Records of the City of New Amsterdam." The set will be issued under the editorial supervision of Mr. Berthold Fernow, and will be comprised in six volumes of text and one volume of index. The records cover the entire period of the municipal life of New Amsterdam during the control of the Hollanders, that is to say from 1653 to 1664 and landers, that is to say from 1653 to 1664 and from 1673 to 1674.

from 1673 to 1674.

The little folks will no doubt appreciate the handsome art book, "Small Songs for Small Singers," by W. H. Neidlinger. The pages are quarto in size and the paper of thick, fine quality. The words are mostly of the nonsense sort, but they are bright and (with the music) will please the young people. The artist, Walter Bobbett, has shown much ingenuity and humor in the pictures at the tops and on the margins of the pages. They are finely colored. (G. Schirmer, New York.)



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Hooks.

The method of teaching reading to young children, in accordance with pedagogical principles and the most approved practice, is indicated by Katherine Beebe and Nellie F. Kingsley in a beautiful little book, lately published, called "The First Nature Reader." The subject matter follows the season, calling attention to its fruits, birds, activities, etc., as it retreats and advances; and, while it calls for the preparation of each lesson by the teacher, it demands only material and information easily accessible to all. Moving mental images and the drama of life, which vividly excite the child's interest, have been presented, and each lesson is to be preceded by a conversation which shall call vividly to mind the subject by a direct study of objects, at all times when it is possible, and by story telling, in which the written word or phrase is presented at the moment when interest is greatest. Script and print forms are presented, and both thus become familiar to the child. Seat work, and practice in sewing, tracing, drawing, writing, etc., are also provided for. As a specimen of bookmaking, this little volume is a gem. Pictorially and typographically, it is one of the handsomest school books we have seen. The colored pictures, with their delicate blending of colors, will be especially admired. (Werner's School Book Co., Chicago and New York.)

There is a great demand for a history of the United States in size midway between the school histories and such exhaustive works as Bancroft's, MacMaster's, and others. The school history, on account of lack of space, only barely mentions certain important events, while the histories in several volumes go into details to such an extent that busy people seldom find time to read them through. Barnes' "Popular History of the United States" occupies this intermediate place. It contains upwards of seven hundred large octavo pages, and numerous illustrations and maps. All the great events of our history are narrated at considerable length, and the home life of the people during the colonial and revolutionary periods is described in detail. This history brings the narrative up to the present

year, making it a desirable book to have in school libraries, because accounts of recent events in books are usually hard to (A. S. Barnes & Co., New York.)

Only a slight examination of Longmans' English Classics Only a single examination of Longmans Engine Classics is necessary to show their value to students of literature. The carefully edited texts, the critical and scholarly introductions, the chronological tables, etc., makes these books very desirable either for school-room study or home reading. One of these volumes is "Dryden's Palamon and Arcite," in which the next talk the same talk as his great predecessor. Chause these volumes is "Dryden's Palamon and Arcite," in which the poet tells the same tale as his great predecessor, Chaucer, though at more length, and, on the whole, much less vigor. Nevertheless Dryden's production is a great poem, and well worth reading. It is edited by Prof. George Rice Carpenter, of Columbia university. Prof. Chas. F. Richardson, of Dartmouth college, contributes to this series "The Last of the Mohicans," a story by Cooper, that has won an enduring popularity, (Longmans, Green & Co., New York.)

The study of ferns is one of the most fascinating connected with the science of botany. Those who wish to extend their knowledge of these beautiful plants will be interested in the quarto volume by Sadie F. Price, bearing the title of "The Fern Collector's Hand-book and Herbarium." This is just what its name implies, for there are classifications given of the different classes of ferns, and illustrations showing the ferns of the northern United States, including the district east of the Mississippi and north of North Carolina and Tennessee. Seventy-two species are illustrated, and a blank page is left opposite each illustration for specimens. The book is printed on fine, heavy paper, and is strongly bound in cloth. (Henry Holt & Co., New York. \$2.25.)

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A first prize of \$500 and a number of smaller prizes have been offered by The Century Co., publishers of "The Century Dictionary and Cyclopedia," for the best answers to a hundred and fifty questions covering a broad range of information. A sample question, which is easier than some of them, is as follows; "What is the approximate difference in altitude between the loftiest Alpine summit and the bed of the greatest depression in the Mediterranean basin?" An additional prize of \$500 is offered to any one who can answer 90 per ean pasin? An auditional prize of \$500 is offered to any one who can answer 90 per cent. of the questions from any ten published works of reference other than "The Century Dictionary and Cyclopedia."

The April "Century" is a "Grant Memorial Number." It contains an article on "The Tomb of General Grant," by General Horace Porter. "Sherman's Opinion of Grant" is shown in a

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hitherto unpublished letter, and Grant's account of the veto of the Inflation Bill is related by the Hon. John A. Kasson, to whom Grant told the story. "A Blue and Gray Friendship," by Hon. John R. Proctor, describes the long intimacy between General Grant and General Buckner, who surrendered to Grant at Donelson. "Grant's rendered to Grant at Donelson. "Grant's Most Famous Despatch," the "fight-it-out-on-this-line" letter, is shown in facsimile for the first time.

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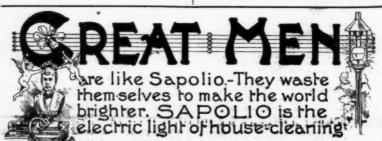
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Board of Education Notes.

Inspectors report that G. S. No. 40 should be abandoned as soon as possible, and a new building supplied, with a suitable

workshop for manual training, a library, and a gymnasium.

The board has voted to abandon P. S No. 47 and retire the principal. The scholars will be conveyed by stages to P. S.

Annexes are to be built to G. S. No. 93, G. S. No. 2, and G.

The committee on instruction recommend the names of 76 female teachers, who have given meritorious service of at least 14 years, for receiving the minimum annual salary of \$750. These teachers are now receiving salaries ranging from \$540 to

It is recommended by the committee on instruction that all public grammar and primary school buildings be renumbered consecutively as public school buildings, the school having the highest grammar grades being designated as grammar schools and all others simply as public schools.

The practicability of putting on sale cheap and wholesome lunches for the children is to be tested in certain selected schools according to a vote of the board of education at its meeting April 7.

It is voted to consolidate the primary departments in G. S. No. 1, G. S. No. 3, G S. No. 20, and G. S. No. 77 with the grammar departments in those schools, the boys and their teachers to be placed under the direction of the male grammar principal, and the girls under the female grammar principals. It is also voted to similarly consolidate the departments in these schools: Nos. 35, 40, 47, 48, 50, 55, 63, 65, 67, and 101.

These school buildings and annexes will be completed and ready for occupancy Sept. 1, 1897: G. S. No. 30, 88th street, between 2d and 3d avenues; G. S. No. 104, St. Ann's avenue; G. S. No. 105, Tremont and Anthony avenues; G. S. No. 37, annex; G. S. No. 81, Bedford park; P. S. No. 5, East 4th street; P. S. No. 31, annex. To be completed Oct. 6, P. S. No. 51 91st street and 1st avenue; Feb. 16, 1898, G. S. No. 1, Henry, Oliver, and Catherine streets; Dec. 16, 1897. 52, Union avenue; Sept. 16, 1897, P. S. No. 106, Cypress avenue; Nov. 1, 1897, P. S. No. 27, West 37th street; Feb. 11, 1898, G. S. No. 63, Fulton avenue and East 173d street; Sept. 15, 1897, G. S. No. 34, Broome and Sheriff streets; June 10, 1898, G. S. No. 107, West Side St. Nicholas avenue, between 126th and 127th streets; Dec. 15, 1897, P. S. No. 37, Grand and Essex streets.

The New High Schools.

The New High Schools.

A glance at the mail of the New York city board of education these days would lead one to think that a good proportion of the male teachers of the United States hope to get a place in one of the four new high schools to be opened in this city next fall. Almost every mail brings to the high school committee a score or more of applications for positions. They come from everywhere, and the committee, it is reported does not by any means intend to confine its selections to the teachers of Greater New York. Indeed, it is currently rumored that the four principals and a large share of the leading positions will be given to teachers who have had no experience in the New York city public schools. The reason given for going outside of the New York system for principals and teachers is that men in the New York system otherwise competent to take high school positions, while they may be very excellent teachers, have had little or no experience with up-to-date methods of teaching the higher branches which are to be included in the high school courses.

The courses of study for the high schools are as yet only tentatively outlined. They were reported at the last meeting of the board of education, as prepared by the high school committee of the board of assistant superintendents, and laid over to be acted upon by the committee of the former board.

The courses of study as outlined in the report of the superintendents include the following:

1. A modern course, designed to prepare students for the scientific department of the boys' college.

2. A classical course, designed to prepare students for the



Hon. Charles Bulkley Hubbell, President of the New York City Board of Education,

classical department of the boys' college, and which, with the addition of one modern language, will prepare students for the academic departments of other colleges.

3. A classical-scientific course, designed to prepare students for admission to the normal college, and to the scientific schools connected with our universities, and to the leading colleges for women.

4. A business course.

A business course.
 A consolidated course or schedule of secondary studies which are included nearly all the subjects usually studied in

high schools.

6. A higher commercial course, designed to give the stu-

in which are included nearly all the subjects usually studied in high schools.

6. A higher commercial course, designed to give the student a very thorough business education, so extended as to give instruction in the higher commercial operations, and to form the foundation of a liberal education at the same time.

All of these courses cover four years, but courses I and 2 are so arranged that the students may enter a boys' college after three years, and course 3 prepares students for entrance to the normal college in three years. Other students desiring to enter other colleges or not wishing to go to colleges at all, may pursue the course for another year and receive a special diploma at graduation.

The plan is: I. To reduce the work of the highest grade in the grammar schools so that it can be completed in six months, and start the high school work at the beginning of the eighth year in school. (2) To take in the work now done in our present "supplementary grades." (3) To take in the work now done in the freshman classes of the two city colleges. The plan contemplates the ultimate absorption of the sub-freshman or introductory class of the two colleges into the high schools; but this is to be accomplished gradually.

In connection with a School Journal representative, Dr. Marble, chairman of the high school committee of the board of superintendents, said that "a number of superintendents and commissioners have lately visited high schools in the Eastern, Middle, and Western states, with a view to looking into their management and course of study. We are now trying to select the principals from a list of some thirty or forty under consideration, but I have no idea who will be chosen. The course of study, which is in outline, has been submitted by the superintendents to the board of education and laid over. I t will soon be completed in detail. Assistant teachers for the high schools will probably not be selected before the last of May, and then, probably, by a regular examination. We have now under considerati

Preparation for State Meeting and

Educational Exhibition.

There is wide-spread and rapidly-growing interest in the state teachers' meeting, to be held in New York city, June 30 and July 1 and 2. At the meeting of the local committee of arrangements, Saturday, Dr. James Lee, chairman of the subcommittee on the educational exhibition, who is in communication with school officials throughout the state, reported that returns are beginning to come in showing a remarkable interest in the proposed exhibition. New York city principals, he said, are asking for abnormal quantities of space in the exhibition, and there is every indication that the 52d annual exhibition of the State Teachers' Association will be an unprecedented success.

It is the purpose of Dr. Lee's committee to house all out-oftown exhibits fairly and nicely, and then to decide the remaining space equitably among the New York city schools. In any event it is the purpose of the committee to give each school in this city an eight-foot table, about thirty-six inches deep, and with an upright back about forty-four inches high, for its exhibit. There will probably be about 300 such tables for the New York city exhibits alone.

Chairman Page, of the local committee of arrangements, has been directed to communicate with every teachers' organization in the city, requesting that ten of its members act as a committee to co-operate with the local committee of arrangements. The entire committee is then to be divided into two parts. Part one, to be known as the citizens' committee, will endeavor to interest the various commercial organizations of the city, such as the stock exchange, chamber of commerce, etc., in the forthcoming meeting. Part two will take charge of the strictly educational work.

At the last meeting of the Association of School Inspectors in this city much interest was manifested in the State Teachers' meeting, and a committee, consisting of the board of officers, was appointed to co-operate with the local committee of arrangements.

The sub-committee on entertainment has been reorganized, with Dr. Walter B. Gunnison, principal of Erasmus high school, Brooklyn, as chairman, and has been instructed to proceedatonce with the plans for a grand excursion. The plan, at first proposed, to take only the out-of-town visitors on the excursion, and to wind up with a shore dinner at Glen Island, has been abandoned, and the committee now proposes to make it a box-lunch affair, costing not more than 25 or 30 cents each, and to let everybody go—home teachers, as well as those from out of town. Three or four steamers are to be chartered and kept sailing all of one day, the route covering all points of interest about the city, the bay, the Hudson below Yonkers, and the East and Harlem rivers. Mr. J. W. Davis, of the sub-committee on reception, is preparing a map and clude all points of interest to be covered by the steamer excur-

The reception committee is also arranging to have a printel list of hotels and boarding-houses, giving special rates during the state meeting, and a bureau of information will be opened in the Grand Union hotel, opposite the 42nd street railroad station, from whence a corps of messengers will escort visitors to their domicils. It is expected that reduced rates of at least one and one-third fares for the round trip will be secured on the railroads to all who wish to attend the state meeting.

An interesting feature of the state meeting will be a series of round-table discussions on kindergarten, manual training, child study, and other up-to-date topics.

The treasurer of the local committee of arrangements reports about \$1,500 received up to date from subscriptions and initiation fees in the state association, and that only about one-third of the city has so far been covered. Membership in the state association is \$1 for men, and 50 cents for women. This includes all the privileges of the state meeting and exhibition, the proposed excursion, and dues for one year in the State Teachers' Association. A local organization has been formed, membership in which, on payment of \$2, by men teachers and \$1 by women, carries with it all of the above-named privileges. The extra amount—\$1 for men and 50 cents for women—charged by the local organization is intended to help pay the



Dr. Walter B. Gunnison, Principal of Erasmus Hall High School, Brooklyn.

expenses of the state meeting and exhibition. Any surplus resulting from moneys secured by the local association will, after the state meeting, be divided among the several teachers' benefit associations of the city. Membership in this local association is entirely voluntary. Complaint has been made that teachers of New York city are being "taxed" to pay for the state meeting. This is untrue, and one prominent educator said, on hearing the statement, that even if it were true, the "tax" would amount to less than one-fifth of one per cent. of the annual salary of the lowest-paid public school teacher in New York city. "Any one who would find fault with that," said he, "should quit the profession."

Brooklyn teachers, according to Dr. Gunnison, will not be behind the teachers of New York city in active support financially, and otherwise, of the state meeting and exhibition.

The next meeting of the local committee of arrangements will be held on Saturday, April 17.

Brooklyn Teachers and the State Meeting.

Brooklyn teachers have voted to take part in the exhibition and local arrangements attending the meeting of the State Teachers' Association, in New York city, next July, as active participants, rather than as "guests," as was at first intended; and Dr. Walter B. Gunnison, of Brooklyn, has been elected chairman of the united local committee on entertainment, in place of Elijah D. Clark, resigned.

Music Teachers' Convention.

Mr. Geo rge C. Gow, professor of music at Vassar college, is trying to bring about a meeting of persons interested in college and musical education, in connection with the music teachers' national convention, to be held in New York in June. Mr. Gow has written letters to several distinguished musical educators of Europe. He has sent to every college president in the United States, making the following requests:

I.—Will you send at once to the chairman of the committee your catalogue for the current year, and all other printed matter bearing upon the status of music in your institution?

2. Will you kindly write out for him a statement of the history of your institution in its treatment of music, the success of your present plans, and what modification or enlargement would, in your judgment, enhance the usefulness of the department?

3. Will you express as fully as you may desire the lines along which discussion in the conference would prove most helpful to you, or would seem to you most generally useful?

This convention promises to be a great success. Prices amounting to \$500 will be offered for musical compositions, those that are successful to appear on the program, and so be rendered before the first musicians of the country.

The convention will include a performance of the "Messiah,"



Archibald C. McLachlan, Principal elect of the State Normal School, at Jamaica, L. I., now in process of Construction.

orchestral concerts, chamber music concerts, and piano and organ recitals. Conferences will be held on the subjects:

Methods of Public School Training and Popular Sight Singing Classes."

Music as a Department in the University and College." "Methods and Results in Music Schools."

Chorus of Four Hundred School Children.

150 children of primary school No. 16 and 250 children of the female department of No. 49 will sing at the National Music Teachers' convention at the Grand Central Palace, on June 24 to 28, and also at the State Tachers' convention at the Normal college, June 31 to July 3. They will be under the direction of Dr. Frank Damrosch.

Teachers Oppose Certain Provisions of the Greater **New York Charter**

At the meeting of the Male Assistant Teachers' Association in the city college, Saturday, the special committee on legislation appointed to consider the proposed Greater New York charter presented a report embodying the following objections to the proposed charter:

The Chapter on Public Schools in the Charter for the Greater New York contains several provisions that are detrimental to the interests of the assistant teachers. Among them are the following:

Section 1081 is unsatisfactory, because it does not fix the number of class-examinations a teacher having a temporary license is to have. One examination may end a teacher's career.

Sections 1103 and 1105 make it possible for a principal to revent the "appointment, promotion, or transfer" of a prevent the teacher who desires such change, and whose record may entitle him to it.

Section 1114 makes it possible for a principal to suspend a teacher, with or without pay, before complaint has been sent to borough superintendent.

This section further makes it possible for the authorities to keep a teacher, against whom charge has been made, entirely ignorant of the nature of the charge, until such teacher is actually before the trial committee. And it gives the power of dismissal to a majority of the members of a school board present at a meeting (instead of three-quarters of entire board, as at present).

The charter, which has already passed both houses of the legislature, can be amended by supplemental legislation, and the committee's report was adopted as the sentiments of the Male Assistant Teachers' Association, and the matter referred back to the committee, with power to act. It was also the sense of the association that the legislative committee endeavor to secure an amendment to the proposal charter, that no existing teacher's salary in the Greater New York shall be lowered. Supplementary legislation cannot be introduced, except by unanimous consent of the legislators after April 6.

Dr. J. P. Conroy was elected treasurer of the association. Legislative committee: Wm. F. O'Callaghan, chairman; R. Russell Requa, secretary; Chas. L. Lawrence, and J. T. Nich-

Male Teachers' Association.

An important special meeting of the New York City Male Assistant Teachers' Association was called for Thursday, April 15, at 4.10 p. m., in the city college, to consider matters relating to the eligible list.

Twenty-first Anniversary of Mr. Niehols.

Mt. Vernon, N. Y .- Mr. Charles E. Nichols completed his twenty-first year as superintendent of the Mt. Vernon schools, March 31. In honor of this anniversary, and to express their esteem for his faithful and earnest work, all the teachers, the members of the school board, and many former pupils and personal friends gathered in the assembly-room of the central high school to congratulate Mr. Nichols.

The affair was arranged by the teachers, who planned the program and conducted the exercises. Mr. Joseph S. Wood, who was city superintendent for the eleven years preceding Mr. Nichols, presented, in behalf of the teachers, as a token of their regard, a watch-charm, set with diamonds and suitably engraved. Mr. Nichols was taken entirely by surprise, but expressed his thanks in a few suitable remarks. Several speakers followed, among them members of former boards of education, associate teachers, former pupils, and parents whose children had grown to manhood and womanhood, under the supervision of Mr. Nichols. Several of these spoke of the interest which Mr. Nichols has always taken in the building of character, which has led the young people, and the parents with

them, to broad and noble conceptions of life.

The Mount Vernon Musical Society, under the charge of Prof. Hallam, of New York city, rendered excellent music.

Schoolmasters' League Dinner.

The annual meeting and dinner of the Schoolmasters' League, of New Jersey, was held at the Hotel Washington, Jersey City, Saturday evening, March 27. Thirty-three principals from Jersey City and Newark were present. All male teachers of approved standing of the public schools of New Jersey are eligible for membership; the admission fee being \$5 and the annual dues \$2. The following officers were chosen for the ensuing year: President, George H. Linsley, of Jersey City; vice-president, Edwin Shepard, of Newark; secretary, Louis A. Goodenough, of Jersey City, and treasurer, W. E. Bissell, of Newark.

Library Extension.

Prin. Charles S. Haskell, of the high school, has been the means of furnishing the pupils of the public schools of Jersey City with reading advantages which few cities offer. Some forty sets of books, with forty or more volumes in each, has been purchased by the Free Public Library. These are sent, at the beginning of each month, to the sub-stations nearest the schools, from which each school obtains at least two sets. At the end of the month these are returned, and other sets substituted. Suitable books of fables, folk stories, fairy tales, history, biography, natural history, fiction, etc., compose the library.

A Lightning Calculator.

Louis Sperick, a boy ten years old, with a genius for calculating, walked into the "Sun" building the other morning and asked to be given some work in addition. He was given a column of figures, consisting of thirteen sets of numbers running up to hundreds of billions, whose sum he calculated in just one minute and seventeen seconds.

The Foundlings of the City.

In the foundlings' home, on Randall's Island, there are 900 children. The wards in which these babies live are long, high-ceiled rooms, with cots along the walls, placed end to end, in groups of two. There are large windows on each side, and everything is kept scrupulously clean. On the rail of every cot hangs a label giving the name and age of the child sleeping

The cows that can be seen grazing outside the buildings supply the milk which is used for the babies' food. It is kept in glass jars, protected by coverings of absorbent cotton. The quantity required for each child is carefully measured and mixed

ith cream, sugar, or lime water, as the physicians direct.

Dolls, and other playthings, are sent in from the world outside, and the children are, apparently, happy.

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The Society for Pedagogic Research.

The meeting of the Society for Pedagogic Research, on Saturday, at the university in Washington Square, was one of unusual interest. Dr. Taylor read a paper on "Concentration, Correlation, and Coördination," which was followed by a very animated discussion.

The following is an abstract of the lecture:

The present curriculum is an aggregation of subjects jumbled together promiscuously in obedience to various demands made upon school authorities. It is congested, rather than digested. It lacks unity and consistency because it has not been developed logically in accordance with a single unifying principle. One phase of a school reform at present is therefore concerned with the reconstruction of the course of study. Two notable attempts have been made in this field, both by the National Educational Association, one through its committee of ten, the other through the committee of fifteen.

The criticism against the old curriculum was that it was noor or lean, and so a demand arose for "enrichment." the addition of so many new subjects, each taught independently, resulted in an overloading. Now the problem is, how to retain what we have, and, possibly, add still more, without

overtaxing the powers of pupil and teacher. overtaxing the powers of pupil and teacher.

All the solutions proposed are known by the generic name of "correlation." The speaker then sketched briefly, but carefully, the theories of coordination of Dr. Harris and Dr. De Garmo, and the various schemes of "Concentration," proposed by Col. Parker, Ziller, Rein, McMurry, and others and concluded with these words:

"We have now passed in review some of the principal theories of coordination, correlation, and concentration." I hope

ries of coordination, correlation, and concentration. I hope these will suffice to convince you that the making of a course of study for the children of seventy million people is one of the most stupendous tasks that can be undertaken by the human mind."

Among those who were present at the lecture were Dr. Edward R. Shaw, dean of the school of pedagogy; Drs. Bliss, Monteser, and Haney, of the faculty of pedagogy; Dr. Jenny B. Merrill, supervisor of kindergartens, and the following prominent teachers: Mr. C. A Kidd, Dr. John P. Conroy, Dr. Philip Grunenthal, Dr. Ayres, Mr. E. A. Daniels, president Male Teachers' Association; Miss Mary E. Guirey, Jerome A. O'Connell, John Dwyer, Dr. B. C. Magie, Miss Marion Mc C. Christie, and others.

In discussing the paper, Dr. Shaw outlined the work that he and his students have been doing in correlation within the past year. He said that they had finally accepted the use of "correlation," as employed by Dr. Harris, to include all schemes looking toward putting the pupil in possession of the civilization into which he is born. "Coördination" and "Concentration" are sub-heads showing different ways in which the correlation may be effected, while "Interrelation" is applied to the teaching of any two or more subjects at one and the same time.

Dr. Haney regretted that manual training has not made.

Dr. Haney regretted that manual training has not made more progress in correlating itself with other subjects of the curriculum, but excused the advocates and teachers of manual education for their failure in this regard, by stating that manual training itself is in an evolutionary stage. No two teachers would people in the progress as to what manual training actually applied to the correct of the progress of t ers would probably agree as to what manual training actually

is.

Dr. Monteser said he thought individual class teachers should do much more in this matter than they have done. They could find many opportunities for pointing out "interrelations" which might not occur to educators who are not engaged in class-room work.

Others who took part in the discussion were Dr. Ayres, Mr. Kidd, Dr. Magie, Dr. Conroy, and Mr. Mischlich.

A resolution was passed providing for the appointment of a committee to take up the practical work of correlation, and to receive reports on the same from teachers who have made attempts in accordance with the suggestions of Dr. Monteser.

On motion, it was decided to authorize the executive committee to receive as members any teachers, whether connected with the university or not, who are interested in pedagogy and apply for admission.

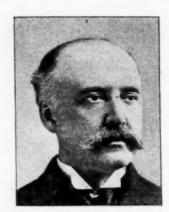
apply for admission.

To Guard the Pupils' Health.

Brooklyn, N. Y.—The board of education recently adopted

Brooklyn, N. Y.—The board of education recently supplied the following resolution:

Resolved, That the committees on studies and health, in conjunction with the superintendent of public instruction, be, and hereby are, authorized to issue a circular relative to the proper methods and rules that should govern the study of pupils outside school hours, and that such circular be placed in the hands of parents and pupils by principals and teachers



Dr. Wm. H. Maxwell, Superintendent of Schools, Brocklyn, N. Y.

In compliance with the resolution, the department of public instruction has issued this circular

TO TEACHERS.

The rule of the board with regard to home study reads

as follows:

No home study of any kind, except spelling and supplementary reading, shall be assigned to the pupils in any primary grade; no home study requiring more than half an hour in any one day, except spelling and supplementary reading, shall be assigned to the pupils in the four lowest grammar grades; no home study requiring more than one hour in any one day, except spelling and supplementary reading, shall be assigned to pupils in the four highest grammar grades; the solution of problems in arithmetic shall not be assigned for home study in any primary grade, or in any grammar grade, except the first and second grammar, and no home study requiring more than two hours in any one day shall be assigned to the pupils in any high school grade.

2. Pupils should not be required to report in school the amount of time spent in study at home, as, when required to do so, they are often tempted to misrepresent the facts.

3. Teachers in the elementary (grammar and primary) schools should see to it that the amount of home work assigned does not exceed that which may be fairly accomplished by the average pupil in the time specified by the rule of the board.

by the average pupil in the time specified by the rule of the

4. Teachers of each division in each high school should hold frequent conferences for the purpose of determining the amount of home work that should be assigned in each subject taught, so that no subject may receive more than its due share of attention.

5. Home study may be of two kinds: (a) Preparatory, to afford material for the next day's lesson; (b) supplementary to class-room work, dealing with matter treated in a previous lesson.

class-room work, dealing with matter treated in a previous lesson.

As a general rule, home lessons should be supplementary rather than preparatory. To use Sir James Fitch's words: "Kindle interest and sympathy first. Let the scholars see what you are aiming at, and catch something of your own interest and enthusiasm in the pursuit of truth, and then they will be prepared to take some trouble in mastering those details which they see to be needed in order to give system and clearness to their knowledge. But he who expects children to master, with any earnestness, details of which they do not see the purpose, is asking them to make bricks without straw, and will certainly be disappointed."

6. For the most part, home exercises should be written. "The chief value of written exercises," again to quote Sir James Fitch, "is to give definiteness to lessons already learned, and to thrust them home into the memory, rather than to break new ground." Moreover, writing an exercise keeps the child's thoughts concentrated on the work, and prevents that mind-wandering which too often takes the place of study. Mind-wandering, under the guise of study, is one of the most dangerous and injurious habits the young student can acquire.

7. Home exercises should be brief and definite. Unless

can acquire.

7. Home exercises should be brief and definite. Unless they are brief and definite, they do not admit of easy correction in class; and home exercises that are not corrected are generally worse than useless, as they encourage carelessness.

8. Home exercises should be well within the pupil's ability to perform. There should be no temptation to apply to relatives or friends for assistance—no temptation to present disponent work to the teacher. can acquire.
7. Home

honest work to the teacher.

TO PARENTS.

1. The health of your children is paramount to every other consideration. When children, particularly girls, between the ages of 10 and 17, exhibit evidences of nervous disorder, such as twitching of the face and hands, or extreme irritability, it is a sure sign either that the school work is too severe, or that

they are not living under proper hygienic conditions, or both. In all such cases school work should either be materially less-

In all such cases school work should either be materially lessened or be intermitted until there is a restoration to health.

2. In the majority of cases it is true that to conquer the difficulties of arithmetic and grammar, or the intricacies of a new language, is harder work for the child than are for the business or professional man his every-day avocations. Hence, children need constant care, sympathy, and encouragement.

3. Children should spend not less than two hours every day in the open air, and, if possible, should engage in games requiring both skill and activity.

4. Children should spend at least twenty minutes every day in practicing at home the gymnastic exercises they learn at school.

 Children should not be permitted to attend social par-ties, or public meetings, or entertainments, on evenings pre-ceding school days. ceding school days.

6. Children should spend in sleep not less than nine, and,

6. Children should spend in sleep not less than nine, and, if possible, ten hours out of every twenty-four.

7. The following practices should be prohibited, as being injurious to health: Study before partaking of food in the morning; the rapid reading of lessons just before the beginning of a school session; study during the noon intermission; study immediately after the close of school, before mind and body have been rested by play or other suitable change of occupation; study immediately after eating a hearty meal.

8. When children study or read, either by sunlight, or by artificial light, care should be taken that the light is sufficient, and that it falls upon the page from the left.

9. Children should have fixed hours for study, never exceeding the time specified in the rule of the board of education, and nothing should be permitted to interfere with these

tion, and nothing should be permitted to interfere with these hours of study.

tion, and nothing should be permitted to interfere with these hours of study.

10. When parents find that their children, after conscientious effort, cannot accomplish the work assigned by the teacher in the time specified in the rule, they should at once communicate the fact to the principal of the school and ask for a diminution of the tasks assigned.

11. Parents should never urge children to make extra efforts to obtain promotion, and show annoyance if they fail to obtain promotion. What children need for intellectual and moral progress is systematic, not spasmodic, work. If, for any good reason, a child is not promoted or graduated at the end of a term, he should not be reprimanded, but encouraged to try again. Above all, parents should not, by finding fault with the teacher, weaken her influence for good.

12. Cigarette smoking by growing boys is dangerous alike to the physical, the intellectual, and the moral well-being. Parents cannot be too vigilant in preventing their sons, who have not yet reached maturity, from using tobacco in any form, and particularly in that of the cigarette.

Parents may procure copies of this circular, on application to principals of schools.

By the order of the committees on studies and health of the board of education.

William H. Maxwell, superintendent

board of education.

William H. Maxwell, superintendent.

Mothers' Meetings in Public Schools.

By Julia Richman.

All school work must fall short of the highest results unless, in addition to good teaching, suitable equipment, a rich course of study and efficient supervision, two other factors are brought into play: The love and loyalty of the children, and

brought into play: The love and loyalty of the cnuaren, and the co-operation of the parents.

The limited space allotted to this paper will not permit even the co-operation of what lines upon which the former may be secured, The limited space allotted to this paper will not permit even mention of the lines upon which the former may be secured, but trusting readers will pardon the personal nature of what follows, I shall try to show, not how the co-operation of the parents may be secured, but how it has actually been secured. Our experience prior to the establishment of our meetings, like that of most principals and teachers, was this: But two classes of mothers ever came to the school—the mother of the

classes of most principals and teachers, was this: But two classes of mothers ever came to the school—the mother of the delinquent, who came only when sent for, and the mother of the petted darling, who only came to make complaint. Interviews with these women proved that the mothers and teachers were often pulling the child in opposite directions, due to misunderstanding on both sides.

In our efforts to advance the interests of our children, we resolved to invite all the mothers to come to the school one afternoon. Some music was provided, and some light refreshments were served. An address, by Miss Grace H. Dodge, upon "Motherhood," and aninformal talk by the principal completed the program. The latter was a clear, simple statement of the needs of the children. The perplexities of the teacher, and the obligations of the mother. Two tangible results were obtained from this meeting. The mothers left, feeling a sense of personal interest in the school and the school work, and they carried home the knowledge that here, at least, the school-mistress wished to be more than a task-master; she wished to join forces with the mother, in order to develop the highest and best in the child.

This preliminary meeting was held in May, 1895, and no further attendance.

This preliminary meeting was held in May, 1895, and no further attempt was made until during the fall following, when



Augustus S. Downing, New York State Supervisor of Teachers' Institutes and Training Classes.

the regular meeting day was established. The serving of refreshments was discontinued, partly on account of the expense and trouble involved, but also because the mothers prefer to give their full attention to the subjects under discussion. During the whole year of 1895-96, until June, these meetings were held on Thursday of every week, from 3 to 5 o'clock. From 3 to 4 each teacher circulates among the visitors, chatting with those mothers whose children are in her own class, and making detailed reports as to each child's failings or needs. How many hard places have been smoothed over by the better understanding that has come in this way to both mother and teacher. How much more forbearance is shown to many troublesome children by the teacher, when an acquaintance-ship with the mothers explains not only why the children are so bad, but rouses a feeling of surprise that they are no worse; how many mothers have come to understand the nature of school problems, and now help, where once they hindered; how many children, feeling now the personal interest of the mother in the school, work with a new zeal, and a new purpose, because "I want you to tell mamma on Thursday that I am doing so much better now," or because "Papa said he'd punish me if, when mamma comes on Thursday, you don't tell her I have improved," no one can estimate.

The tax on busy and overworked teachers to devote one day every week to the mothers' meeting was great, indeed, so at the first meeting of this school year, held early in October last, it was left to the mothers to decide whether or not once every fortnight would suffice. The general opinion was, "We'd be so glad to come every week, but it's asking too much of you and the teachers, so make it once every two weeks."

That we have done, with a result far beyond our hopes. The attendance varies from a minimum of fifty to a maximum of 170. A fair average attendance is about seventy-five.

At one meeting each month an outsider delivers the "talk." When the talk has been short, a discussion fol

furnished; this is followed by an informal talk on the part of the principal, who brings up the important points in the "talk" of the preceding meeting, and who introduces all such matters as come up in the regular school work, of interest to the parents, or where parents' neglect, or carelessness has complicated the school problems. The speakers who have given "talks" this year are as follows:

October.—Dr. Jenny B. Merrill, supervisor of kindergarten. "Proper Home Amusements for Children."

November.—Dr. S. Goldstein, specialist. "Throat and Nasal Troubles—Their Causes— Preventive Measures."

December.—Miss Theresa Hitchler, cataloguer free circulating library. "What and How to Read—For Mothers and for Children."

ing library. Children."

January.—Miss Alice Donlevy, secretary art association, "What can We do with Our Girls?"
(Special reference to those who cannot afford a professional training, but who desire something better than factory or shop work.)
February.—Dr. Victor Bell, dental specialist. "The Care of the Teeth."

Stereopticon illustrations (furnished gratis by Dr. Bell).

March.—Rev. Dr. M. H. Harris, clergyman. "How
Train Children to be Truthful."

Truth Children to be Truthful."

For April, May, and Iune, the topics selected are "What Can We do With Our Boys?" "The Care of the Eyes," and

"How Can We Raise the Standard of Social Purity Among Growing Boys and Girls?"

The speakers for these talks have not yet been selected. The principal has introduced into her talks almost every line of parental obligation toward children, and toward the school. The mothers are urged to furnish experiences or information, to ask questions, and to express views. Some are still very

The mothers are urged to furnish experiences or information, to ask questions, and to express views. Some are still very shy; others help much in putting life into the discussions. Are these meetings a care? Certainly.

Are the results sufficiently valuable to offset this additional care and burden upon principal and teachers already groaning under a burden almost greater than they can bear? Ask the mothers; ask the teachers. There will be found no dissenting voice. It is not all work; the reward is full and ample. There is even the humorous side. Let me quote three remarks made at three different times. They will cause a laugh:

Teacher—"Your little girl is very nervous. I think if you were to give her a cold sponge bath, regularly, it would make

stronger."

1 Stronger." Why, I give all my children a bath every two Motherweeks

During a discussion upon the value of reading good books, in order to improve their English:

Mother—"I told my husband he mustn't never talk no German to the children. But you know them foreigners won't talk no English, because they can't talk it good; but my children shan't hear no German from me."

During a discussion upon the tendency of most children to

Mother (proudly)—"Why, I've got a little girl home only four years old, who can lie faster than a horse can trot!"

When you have recovered from your laugh, ask yourself whether mothers in general (for these are the average mother) have not great need of the helping hand of the teacher; if so, I know of no "helping" agency within reach of the school half as potent as the mothers' meetings.

Principal F. D. G. S. No. 77, New York City.

Note.—Meetings were held on April 8th, and will occur every second week thereafter. All interested, are welcome.

A New York Tea-Party.

By C. De F. Hoxie.

Every school-boy is familiar with the event in history known as the "Boston Tea-Party," when, on December 16, 1773, Massachusetts patriots disguised as Indians emptied 242 chests of tea into the cold, salt water of Boston harbor to demonstrate their opposition to the hated principle of taxation without representation; but very few grown men, even, know that the patriots of New York city had a similar "tea-party," and that on April 22, just four months and six days after the famous Boston affair, the men of Manhattan

dumped eighteen chests of detested British tea into the waters off what is now Battery Park.

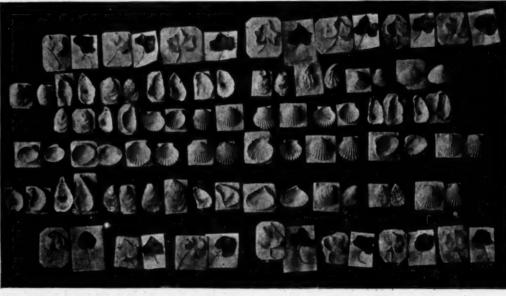
This is how the New York tea-party came about:

On April 7, 1774, the sails of the British tea-ship Nancy appeared off Sandy Hook in pursuance of King George's policy of forcing America to buy, drink, and pay an import tax on tea. Stout-hearted patriots had been notified of the expected coming of the Nancy and at once the city was in commotion. Handbills were gotten out and quickly scattered, A committee of the Sons of Liberty decided that the captain of the Nancy might land, visit Hon. Henry White, one of the consignees of the tea, and procure supplies for a return voyage, but that none of the crew might come ashore, and, above all, not a pound of the hated tea might be landed. This program was carried out to the letter and the Nancy turned her crestfallen prow in the direction of London and sailed away,

On April 22, just thirteen days after the appearance of the Nancy, the British ship London came into port. A committee visited her to discover if she had any tea on board. This was denied by the captain, but private advices from Philadelphia to the Sons of Liberty, contradicted the captain's report and he was informed that the London must be searched, and that every packet in the hatches must be examined. The captain at once confessed that he had on board eighteen chests of tea "for private speculation." The committee went to the Merchant's Coffee House for consultation and at once made public announcement that the tea on board the London was confiscated. What followed is thus described:

"Meanwhile an excited crowd collected on the wharf, and without disguise or ceremony proceeded to the execution of justice. A proper guard was detailed by the merchants to prevent waste, and the tea was thrown into the bay, without confusion or injury to other property. The captain was nowhere to be found. The next morning the bells of the city began to ring at eight o'clock, according to a previous notice for the calling of the citizens together to witness the departure of Captain Lockyer. The object was to let him see with his own eyes, and thus be able to report truthfully in England, the detestation with which the measures of the English Ministry were regarded in New York. The bells rang for an hour without intermission (he was to embark at nine), and an immense but orderly throng filled the streets. He was conducted from his lodgings to the wharf, the band playing 'God save the king,' and placed in a pilot boat-still under escort-and conveyed to his vessel, the ships in the harbor displaying their colors, and the flag on the liberty-pole rising under a royal salute of artillery.'

Thus New York city had her Revolutionary tea-party.



Clay Modeling in New York City Public Schools. Sixth grade work. Boys' Class, G. S. 77.

N. Y. State Teachers' Association.

Revised Constitution.

Article I.-Name.

This society shall be known as the New York State Teachers' Association.

Article II.-Object.

Its objects shall the promotion of the interests of public education and the elevation of the profession of teaching.

Article III.-Membership.

Any person actively engaged in any branch of educational work may become a member of this Association by the payment of annual or life membership dues.

Article IV.-Officers.

The officers of this Association shall be a President, four Vice-Presidents, a Recording Secretary and Assistant Secretary, a Treasurer and Assistant Treasurer, a Transportation Agent, a Superintendent of Exhibits, and an Executive Committee of seven members, of which the President of the Association shall be one. (As amended 1889.)

Article V.-Election of Officers.

Section 1.—At the opening day of the session the President shall appoint a committee of seven, comprising at least one member from each of the specific educational associations of the state, to present candidates for the Executive Committee and also four candidates for Vice-presidents.

(As Amended 1880.)

Section 2.—The members of the Executive Committee shall be elected for three years, two to go out of office each year. To inaugurate this plan the six elected the first year shall draw lots, two to serve one year, two to serve two years, and two

3.-The annual election of officers shall Section between the hours of 11 a. m. and 2 p. m. on the second day of the session. A plurality vote shall elect. The election shall be under the direction of five inspectors appointed by the President of the Association. The report of the inspectors shall be final.

Section 4.—In the absence of the President a Vice-President shall preside.

Section 5.—The Executive Committee shall have power to fill all vacancies.

Article IV.-Report.

The Executive Committee shall annually, in the month of December, make and file with the County Clerk in the County of Albany, a report in conformity with the provisions of the articles of incorporation.

Article VII.—Standing Committees.

There shall be appointed by the President of the Association, at the first session of each annual meeting, the following standing committees, each to hold until the next annual meeting:

meeting:

Section 1.—A Finance Committee of three members, who shall be taken from the Executive Committee and whose duty it shall be to pass upon all bills presented to the Association for payment, and to audit the report of the Treasurer. (As amended 1890.)

Section 2.—A committee of five members on Necrology, which shall report at the pays any appearance.

(As amended 1890.)
Section 2.—A committee of five members on Necrology, which shall report at the next annual meeting the names and obituaries of members who have deceased during the year.
Section 3.—A committee of five members on Resolutions, to continue during the session.
Section 4.—A committee of three to present at the final session a resume of the meeting.
Section 5.—A committee of three on literature, to hold office for three years, one member to be taken from the Executive Committee, whose duty it shall be to prepare lists of books suitable for children and to revise current juvenile works.

(As adopted 1890.) (As adopted 1890.)

Article VIII.

The time of holding the annual meeting shall be either just before or after the convocation of the Regents, as shall be determined by the Executive Committee; and the place of holding the annual meeting shall be decided upon each year by a vote of the Association.

(As amended 1895.)

Article IX.-Program.

The Executive Committee shall have entire charge of arranging program for annual meeting, except as otherwise provided by constitution and by-laws.



Dr. Thomas S. O'Brien, Assistant Supt. of Schools, New York City.— President of the New York Schoolmasters' Ciub.

Article X.-Section Meetings.

The Executive Committee shall arrange for the following ection meetings if practicable, and others if they deem it desirable:

estrable:

1. Section of college work.

2. Section of normal school work.

3. Section of superintendence.

4. Section of school commissioners' work.

Section of academic work.

5. Section of academic work. 6. Section of primary work.

Article XI.

The Executive Committee shall meet at Albany in October at such dates as the committee may select. At this meeting the appropriation of the maximum amounts for each department shall be made.

(As amended 1890.)

Article XII.-Dues.

Section 1.—The annual dues shall be \$1.00 for gentlemen and 50 cents for ladies. Life membership shall be \$10 for gentlemen and \$5 for ladies. No one shall be permitted to vote or hold office whose dues are not paid. The Executive Committee may arrange to receive dues for annual or life membership at other times than at the annual meetings if they deem it best

deem it best.

Section 2.—Four-fifths of the receipts from life memberships shall be invested, and the interest only used.

Article XIII.-Reports.

The Treasurer shall report annually to the Association, in detail, all receipts and expenditures.

The Executive Committee shall report to the Association annually, stating what they have done, and what they deem it desirable and practicable to do in the future; also such other matters as they think it best to present.

Article XIV.-Quorum.

Fifty members shall constitute a quorum for transaction of business by the Association. Four members shall constitute a quorum for the transaction of business by the Executive Committee.

Article XV.-Disbursements.

No bills shall be paid by the Treasurer except on written order of the President, certified by the chairman of the Finance Committee.

Article XVI.-General Regulations.

The Executive Committee shall make such arrangements as they think best regarding length of papers, time allowed for discussion, and similar matters.

Article XVII.—Amendments,

The Constitution and By-Laws may be altered or amended at any regular meeting by a two-thirds vote of the members present; but any proposed change must be submitted in writing and be read before the Association at least twenty-four hours before it is acted upon. And at the time of reading the time at which it will be submitted to vote must be stated and cannot afterward be changed.

Directory of Educational Associations.

An effort has been made to give in the following directory the names of all educational associations in the Metropolitan district. Readers knowing of any association omitted in this list are requested to notify the editor giving name, officers, and number of members

Teachers' Associations.

New York State Teachers' Association .- Pres, Prin. Chas. E. White, Franklin School, Syracuse; Secretary, Prin. Schuyler F. Herron, Elizabethtown; Treas., Prin. S. Mckee Smith, Chatham.

NEW YORK CITY.

New York City Teachers' Association.—Elijah D. Clark, Pres.; Miss Henrietta Woodman, Cor. Sec.; Henry M. Farrell, Rec. Sec. Meets'at City College 3d Tuesdays. 2,500 members.

New York Schoolmasters' Club.—St. Denis Hotel. Org. 1890. 150 members. Thos. S. O'Brien. Pres.; Chas. A. Dorsey, Sec., 81 Adelphia st., Brooklyn.

New York Society of Pedagogy.—Madison av. and 85th st. Org. 1889. 1,200 members. Edward A Page, Pres.; Miss Hester A. Roberts, Cor. Sec.; John W. Davis, Rec. Sec.; Herman C. Boehme, chairman membership committee

Teachers' Mutual Life Assurance Association.—Henry C. Litchfield, Pres.; Samuel McC. Crosby, Sec., E. 95th st. cor. Lexington av.

Teachers' Mutual Aid Society.-Dr. John P. Conroy, Pres.; Dr. R. B. Keyser, G. S. No. 3.

Association of Primary Principals.—Miss Josephine E. Rogers, Pres.; Miss S. E. Buckbee, Sec.

The "Emile."-Joseph A. Fripp, Pres.; Emanuel A. Wahl,

Association of Female Assistants in Grammar Departments.-

Miss Alida S. Williams, Pres.; Miss Mary W. Hatch, Cor. Sec. Primary Teachers' Association.—Miss Mary A. McGovern, Pres.; Mrs J. E. Archer, Sec.

Mutual Benefit Association.-Principal Dubois B. Frisbee, G. S. No. 4, Pres.

Association of Female Assistants in Mixed Schools.—Miss lary E. Thurber, G. S. No. 85, Pres.
Male Teachers' Association.—Edwin E. Daniels, G. S. No. 87,

Teachers' Building and Loan Association of New York City.—David E. Gaddis, G.S. 54, Pres.; Samuel Mc C. Crosby, G. S. No. 86, Treas; A. D. Stratton, G. S. No. 4, Sec. 1,000 members. Shares \$240 each, assets, \$556,450. New Series opens each Shares \$240 each, assets year in April and October.

Association of Female Principals of Grammar Departments of the City of New York.—Miss Montfort, G. S. No. 57, Pres. New York University Society for Child Study.—Jas. P. Haney, M. D., Pres; Miriam Wheeler, Sec.

Alpha Round Table, University Society for Child Study.—Ella

Keith, Leader.

Society for the Comparative Study of Pedagogy, -Dr. Samuel Weir, School of Pedagogy, Pres.; Dr. F. Monteser, School of Pedagogy, Secretary.

Teachers' Co-operative Building and Loan Association of the City of New York.—Joseph G. Furey, G. S. No. 40, Pres.; Magnus Gross, G. S. No. 6, Sec.; James M. Kieran, G. S. 81 Treas. Members, 641.

Brooklyn Principals' Association.—65 members. Calvin Patterson, Pres., Girls' High School; James J. McCabe, Sec., Brooklyn Teacher's Aid Association.—W. M. Jelliffe, Pres. 196 Sixth av.; Jas. Cruikshank, Treas; Grace C. Wilson, Sec. Brooklyn Teachers' Association—2,300 members. Walter B. Gunnison, Pres.; Emma A. Keeler, Sec., P. S. No. 26, Gates av., near Ralph.

Brooklyn Teachers' Life Assurance Association—1,557 members. Charles E. Tuthill, Pres.; Leonard B. Dunkly, Treas.; Mary B. Hart, Sec., 395 Cumberland st.

Heads of Departments Association.—Miss Susan H. Wilkins, Pres.; Miss Adelaide A. Philips, Treas.; Miss Kate E. Turner, Cor. Sec., 472 Quincy st.

Cor. Sec., 472 Quincy st.

Association of Normal Graduates.—John H, Harris, 472 Sixth Street, Brooklyn, N. Y., Sec.

NEW IERSEY.

Schoolmasters' League of New Jersey.—George H. Jersey City, Pres.; Edwin Shepard, Neward, Vice-Pres. -George H. Linsley

JERSEY CITY.

The Teachers' Club.—Miss Lydia K. Ennis, Pres. The Male Priacipals' Association.

The Primary Teachers' Association.

Principals' Association.-Edwin Shepard, Pres.; Clarence M. Giffin, Sec. Membership 40. Meets once each month, the 4th

This association is very much alive. The meetings are well attended. Though the membership is not large this association is an educational power in Newark.

Vice-Principals' Association.—Miss Jane E. Allen, Pres.;

Vice-Principals' Association.—Miss Jane E. Allen, Pres.; liss Eunice McLeod, Sec. Membership 23. Meets once each Teachers' Guild.—Miss Sara A. Fawcett, Pres.; Miss Jessie K. Miss Eunice Doremus, Sec. Meets once each month. Membership about 500.

Other Educational Associations.

NEW YORK CITY.

New York Trade School.- 1st av., 68th and 69th sts. New York Trade School.— 1st av., 68th and 69th sts. Org. 1881. 507 students. R. Fulton Cutting, Pres.; H. V. Brill, Man. Progressive Club.—229 E. 19th st. Org. 1884. 90 members. Object, classes for self improvement. Mrs. Henry Marquand, Pres.; Miss K. Walsh, Sec., 229 E. 15th st. New York Kindergarten Association.—105 E. 22d st. Hamilton W. Mabie, Pres.; Daniel S. Remsen, Sec. Neighborhood Guild.—26 Delancy st. Org. 1887. 2,000 members. Object same as University Settlement Society. Henry I. Rode. Sec.

members. Object Henry J. Rode, Sec.

York Genealogica! and Biographical Society.

58th st. Org. 1869. 360 members. James Grant Wilson, Pres.; Thos. G. Evans Sec.; Richard H. Greene, Librarian. New York Society for Prevention of Cruelty to Children.—297 4th av. Elbridge T. Gerry, Pres.; E. Follows Jenkins, Sec. New York Zoological Society.—214 Broadway. Andrew H. Green, Pres.; Madison Grant, Sec.

Green, Pres.; Madison Grant, Sec.
Society for the Prevention of Crime.—205 E. 22d st. Chas
H. Parkhurst, Pres.; Thaddeus D. Kenneson, Sec.
Society for Psychical Research (New York Section)—Org.
1890, J. H. Hyslop, Vice-Pres. and Sec., Columbia College, N. Y.
University Settlement Society.—26 Delancy st. Org. 1892.
500 members. Object, to bring men and women of education into close relations with the laboring classes for their mutual benefit. Seth Low, Pres.; Lester W. Clark, Sec.
University and School Extension.—Jas. W. Alexander, Pres.;
M. J. Elgas, Sec., 121 W. 87th st.; Geo. Foster Peabody, Treas,
Children's Aid Society.—D. Willis James, Pres.; Charles E.
Whitehead, Vice-Pres.; Charles Loring Brace, Sec., 105 East
22nd st.

American Kindergarten Society.—70 Fifth av. Miss Emily M. Coe, Pres.; Miss Emily D. Elton, Sec.
Associate Alumnae of the Normal College of the City of New -70 Fifth av. Miss Emily M.

York.—Park av. and 68th st. Org. 1871. 1,575 members. Dr. Mary Augusta Requa, Pres.; Blanche H. Arnold, Sec. City College Club.—133 Lexington av. Organized 1890. 200 members. Alex. P. Ketcham, Pres.; John Weldon, Jr., Sec.,

Hembers, Alex. P. Retelialli, Ples., John V. Barris, J. B. Spaler, Pres.; F. Speigelberg, Sec. College Settlement.—95 Rivington st. Org. 1889. Mrs. C. B. Spaler, Pres.; Mrs. S. T. Johnson, Sec., 80 Park st., Montalis N. J.

clair, N. J.
Girls' Club and Industrial Home.—208 E. 14th st., A. W.

Dennett, Pres.; S. E. Furey, Sec.
American Geographical Society.—11 West 29th st.
Art Students' League.—215 West 57th st, Bryson Burroughs,
Pres. Board of Control; Ethel Jarvis Wheeler, Cor Sec.
Association for the Improved Instruction of Deaf Mutes.—912 Lexington av.

Cooper Union, for the Advancement of Science and Art.—8th

Natural Science Association.—114 5th av.
New York Academy of Science.—41 East 49th st.
New York Historical Society.—170 2nd av.
Scientific Alliance of New York.—41 East 49th st.
Society for Ethical Culture.—669 Madison av.
Society for Instruction in First Aid to the Injured.—105 East

Society for the Reformation of Juvenile Delinquents.-Ran-

dall's Island. York Association of Sewing Schools.-Mrs. Richard Irvin, Pres., Miss H. S. Sackett, Sec.

Froebel Society.—110 members. Mrs. Sadie W. Taylor, 316 Clifton place, Pres.; Mrs. C. Williams, Sec.; Mrs. H. Estelle Hartich, Treas. Object, the advancement of educational interests,

Self culture, and to promote civic patriotism. Meets 1st Monday, Oct. to May, at Froebel Academy, 688-690 Lafayette Ave.

Alumnae Association, Brooklyn Training School For Teachers.

Organized 1893. 200 members. Katharine J. King, Pres.,

Organized 1893. 200 members. Ratharine J. King, Pres., Jessie Coddington, Sec., 745 Hancock st.
Neighborship Settlement.—184 Franklin av., Greenpoint. Supported by Pratt Institute Neighborship Association. There is a Kindergarten, 20 classes, five clubs, thirty teachers and directors, and about 300 regular attendants.
Pratt Institute. Neighborship Association.—Org. 1895. Melville A. Marsh, Pres.; Miss R. Stevens, Sec. Pratt Institute.